CARE Kenya

Community Initiatives for Child Survival Siaya (CICSS-II)

Siaya District, Nyanza Province, Kenya

Child Survival XV

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October 1, 1999 – September 30, 2003

Detailed Implementation Plan

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List of Acronyms/ Abbreviations

ACD	Assistant Country Director
AIDS	Acquired Immune Deficiency Syndrome
ALRI	Acute Lower Respiratory Infection
AMREF	African Medical Research Foundation
APM	Assistant Project Manager
ARI	Acute Respiratory Infection
BI	Bamako Initiative
BF	Breast Feeding
CBA	Community-Based Advisor
CBC	Communication for Behavior Change
CBD	Community-Based Distributor
CBHC	Community-Based Health Care
CBO	Community-Based Organization
CCHI	CARE/CDC Health Initiative
CD	Catholic Diocese
CDC	Centers for Disease Control and Prevention
CDD	Control of Diarrheal Disease
CHW	Community Health Worker
CICSS	Community Initiatives for Child Survival in Siaya
CMCI	Case Management of Childhood Illnesses
CORPS	Community Owned Resource Persons
CPR	Contraceptives Prevalence Rate
CS	Child Survival
DHMT	District Health Management Team
DIP	Detailed Implementation Plan
DMO	District Medical Officer
DMOH	District Medical Officer of Health
ECN	Enrolled Community Nurse
EPI	Expanded Program on Immunization
FHC	Field Health Coordinator
FHS	Field Health Supervisor
FP	Family Planning
FPAK	Family Planning Association of Kenya
GOK	Government of Kenya
GPA	Global Program on AIDS
GTZ	German Technical Cooperation
HF	Health Facility
HIS	Health Information System
HIV	Human Immune-deficiency Virus
HKI	Helen Keller International
HLS	Household Livelihood Security
HPU	Health and Population Unit
IEC	Information Education and Communication
IGA	Income Generating Activity
IMCI	Integrated Management of Childhood Illnesses
IMR	Infant Mortality Rate
ITN	Insecticide Treated Net(s)
IUD	Intro-Uterine Device
KEMRI	Kenya Medical Research Institute
KEPI	Kenya Expanded Program for Immunization
KPC	Knowledge, Practice and Coverage Survey
LQAS	Lot Quality Assessment
M&E	Monitoring and Evaluation

MCH	Maternal and Child Health
MOH	Ministry of Health
MTE	Midterm Evaluation
NGO	Non-governmental Organization
NICRA	Negotiated Indirect Cost Rate Agreement
NID	National Immunization Day(s)
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
PET	Participatory Educational Theatre
PHC	Primary Health Care
PHT	Public Health Technician
PLA	Participatory Learning Approach
PM	Project Manager
PMOH	Provincial Medical Officer of Health
PRA	Participatory Rural Appraisal
PVO	Private Voluntary Organization
RH	Reproductive Health
SHC	Sublocational Health Committee
SPPN	Strengthening Population Practices in Nyanza
STI	Sexually Transmitted Infections
TBA	Traditional Birth Attendant
TOT	Training of Trainers
TT	Tetanus Toxoid
U5MR	Under-Five Mortality Rate
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VAC	Vitamin A Capsules
VAD	Vitamin A Distribution
VHC	Village Health Committee
WHO	World Health Organization

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SECTION 1: Program Description

A. Field Program Summary

PVO/Country: CARE/Kenya **Program Duration**: 1 October 1999 - 30 September 2003

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Table 1. ESTIMATED PROGRAM EFFORT AND USAID FUNDING BY INTERVENTION

Intervention	% Total Effort	USAID Funds in $US
Immunization	10%	$100,000
General Nutrition	0%	$0
Vitamin A	10%	$100,000
Micronutrients (other than Vitamin A)	0%	$0
Breastfeeding Promotion	0%	$0
Control of Diarrheal Disease	20%	$200,000
Pneumonia Case Management	25%	$250,000
Control of Malaria	25%	$250,000
Maternal and Newborn Care	0%	$0
Child Spacing	5%	$50,000
STI/HIV/AIDS Prevention	5%	$50,000
Other (specify)	0%	$0
Total	100%	$1,000,000

Table 2. PROGRAM SITE POPULATION: WOMEN AND CHILDREN

Population Age Group	Number in Age Group
Original 23 CICSS I Sublocations	
Infants (0-11 months)	2,136
12-23 Month Old Children	2,299
12-59 Month Old Children	8,065
Total 0-59 Month Old Children	10,201
Women (15-49years)	14,609
"New" 17 CICSS II sublocations	
Infants (0-11 months)	3,650
12-23 Month Old Children	3,105
12-59 Month Old Children	10,125
Total 0-59 Month Old Children	13,775
Women (15-49years)	17,603
Total for 3 Divisions	
Infants (0-11 months)	5,786
12-23 Month Old Children	5,404
12-59 Month Old Children	18,190
Total 0-59 Month Old Children	23,976
Women (15-49years)	32,212

⊠ **Estimated annual number of live births in the site**: 5286 (source: District Civil Registration Office, Siaya)

⊠ **Sources of population estimates above**: Population estimates for the original 23 CICSS I sites are based upon a demographic survey/census conducted by the project in February 1999. Population estimates for the 17 "new" sublocations to which coverage will be extended under CICSS II are based upon data provided by the Central Bureau of Statistics, Siaya District. The 1999 Kenya National Census results are to

be released during the coming year (tentatively set for April 2000). Population estimates will be updated based upon those data and additional, local demographic surveys to be conducted by the project.

B. Program Location

Siaya District, one of 9 districts in Nyanza Province, lies astride the Equator in western Kenya in the basin of Lake Victoria, about 400 kms west of Nairobi. The district covers approximately 3500 square kms, one third of which is covered by water. The land is mainly grassland with good rainfall, of medium agricultural potential. It is divided into 12 divisions, 49 locations, and 173 sublocations. Sublocations are typically a grouping of eight to ten villages. The original CICSS I project covered portions of three of the 12 divisions of Siaya district: **Boro**, **Karemo** and **Uranga**. The CICSS II project will expand coverage of services and cover the entire area of these Divisions: an area of 613 square kms. Maps of Kenya, Siaya District and the three project targeted divisions are included in Annex F.

While posing no threat to the feasibility of project implementation, infrastructure in the project area is generally poor, meaning there are problems with occasionally impassable roads and few bridges on the major river (the Yala). Walking distance to health care facilities ranges from 3 to 15 km and the ratio of health facility to rural population is 1:18,000. Long distances between villages and health facilities deter mothers/caretakers from obtaining care in time. Politics has been blamed as part of the reason for poor communication and infrastructure and the very limited number of health care facilities. The area supposedly contains the bedrock of opposition to the current and previous Kenyan governments, which have been accused of policies of intentional, selective underdevelopment.

The inhabitants of the district are approximately 90% of Luo ethnic affiliation and the remaining 10% from the Luhya tribe. The historical relationship between the groups is close, and the culture of the district is predominately Luo. Half of the women married to Luhya men speak fluent Luo. However, others come from distant Luhya lands and have little knowledge of Dholuo because their husbands are competent in Kiluhya. Thus the project will need extension workers competent in both Kiluhya and Dholuo. Owing to the linguistic diversity of the target population the project will require extension workers who are fluent in both languages and may be required to develop separate sets of IEC materials in order to reach all mothers in the project area.

Over 80% of the population is engaged in subsistence agriculture or petty trading as their principal means of economic support. Only 1.3% are salaried employees. The population is 40% Catholic and 39% Protestant. Catholics in the area are generally more resistant to modern contraceptive use, while the Protestant group is more liberal. Ten percent of the population belongs to a sect called "Legio Maria," a local denomination that does not believe in modern medicine. Its membership is drawn mainly from the cohort with the lowest literacy levels and may require a special implementation focus. Literacy has increased in recent years with major government efforts; 73% of the women are able to read and have a basic education. The judiciary structure includes customary laws, common laws (from the British system) and Islamic law.

Nyanza Province has the highest levels of infant and child mortality in the nation and nearly double the national average. The Infant Mortality Rate (IMR) in Siaya District has been estimated at102/1000 live births (MOH, Siaya District Annual Report, 1998) as compared to 74/1000 live births nationally (1998 DHS Report). Siaya District's Under-Five Mortality Rate (U5MR) is estimated by Ministry of Health (MOH) sources to be 210/1000 live births (MOH, Siaya District Annual report, 1998) as compared to 112/1000 live births nationally (1998 DHS report). It is important to note that both IMR and U5MR throughout Kenya are rising due to the impact of the AIDS epidemic, which has reversed previous gains in child survival indicators.

The major causes of infant and child deaths in Siaya District are malaria, diarrhea and pneumonia, accounting for 16%, 13% and 12% of reported deaths respectively (Siaya District HIS 1993). CICSS I HIS information show that 44% of Community Health Worker (CHW) treatments were for malaria, 26% for pneumonia and 15% for diarrhea. Malaria exposure rates are among the highest in all of Africa, with an average 300 infectious bites per person per year (Nahlen -personal communication) and a malaria

prevalence of 53.5% (Siaya District Development Plan 1997-2001). Malaria in the district is considered to be holoendemic and eighty percent of the blood slides of children aged 0-59 moths examined at MOH services in Siaya during 1998 were positive for malaria (MOH, Siaya District Annual Report, 1998). A survey conducted in Bondo Division indicated a plasmodium falcipirum infection prevalence rate of 75.3% of children under the age of five and 47.2% of the total population (MOH, Siaya District Annual Report, 1998).

National levels of immunization coverage for women and children are relatively high. Among children 12-23 months, 79% have received measles vaccination and 65% are fully vaccinated according to national EPI guidelines and calendar (1998 DHS report). Eighty percent of children's mothers received tetanus toxoid vaccination during their most recent pregnancy (1998 DHS report). Coverage levels in Siaya District are unfortunately, far below these national figures. The District Medical Officer (DMO) indicates that coverage has fallen below 50% and the District's annual report indicated that 11,243 doses of measles antigen were delivered, for example, against a target of 38,100 children (29.5%) (MOH, Siaya District Annual Report, 1998). The CICSS I Knowledge, Practice(s) and Coverage (KPC) survey carried out in project locations in the three divisions estimated a coverage rate of 59% of children aged 12-23 with measles antigen. Levels of complete vaccination before the age of two years are, of course, much lower.

Other factors contributing to high child mortality rates are poverty, high fertility, anemia, under-nutrition (micro and macro), and limited access to quality preventive and curative services. Health prevention is not a priority for the overworked MOH health staff. High fertility, malaria, HIV, and lack of quality care contribute to maternal mortality rates, estimated at 1000/100,000 live births. The district is estimated to have one of the lowest contraceptive prevalence rates in the country at 17% (GTZ 95), compared to the estimated national rate (any method) of 39% (1998 DHS Report).

The effects of the AIDS epidemic in Kenya cannot be underestimated. Through June 1999 there have been 87,070 reported cases of AIDS which represent 760,000 actual cases and an additional 1,900,000 persons currently infected with the virus (National AIDS/STDs Control Programme, MOH, 1999). These infections are not evenly distributed throughout the country and Nyanza Province has been particularly hard hit. Surveillance site data of pregnant women tested for HIV indicated that 29% of the women in Kisumu tested positive for HIV infection (National AIDS/STDs Control Programme, MOH, 1999). This rate has risen from 19% estimated in 1990 (National AIDS/STDs Control Programme, MOH, 1999). Unpublished data indicate that the highest annual incidence of HIV infections is currently among the 10-24 year old age group (Chin 1998).

Twelve static health care units, including the MOH supported/run district hospital, eight outlying dispensaries and three missionary-supported health centers provide health services in the project area. The MOH facilities deliver an estimated 80% of services in the area. MOH policy and plans call for subdistrict hospitals to be placed at the Division level, health centers to be placed in each location while dispensaries are to be situated at the level of the sublocation. There are no subdivision hospitals nor are there any government health centers located in the CICSS II project area Divisions. By all indications, the three project Divisions are vastly underserved by fixed health facilities. Maternal and Child Health (MCH) services offered in each health existing facility include ARI, malaria, diarrheal diseases and other basic diagnostic and treatment services, prenatal care, family planning, and growth monitoring. The static health clinics are used as referral centers and for CHW continuing education.

Effective health prevention and treatment at health facilities are constrained by limited logistical support and poor management. The government centers are ill equipped, often under staffed and frequently lack essential drugs. They are not highly regarded and local preventive services are poorly utilized. The government's cost sharing scheme has not been as successful as was anticipated and poor management has led to cases of patients being charged for non-existent services further eroding both confidence in and utilization of those services which exist. Drug supply and availability at the facilities is erratic as well, again limiting their ability to serve those patients that do seek care there. Finally, the ongoing AIDS epidemic places an increased burden on already stretched health care services.

Practitioners of traditional medicine are often consulted before or at the same time as modern medical practitioners. As sustainable activities are transferred to communities and they become aware of reduced infant and child mortality, it is expected that fewer consultations with the traditional healers will occur. Village clients have already noted the CHWs provide anti-malarial medications "that really work." However, traditional healers could still play a role in prevention of disease and the promotion of healthy behaviors. The CICSS II project will explore appropriate mechanisms for collaboration with and involvement of traditional healers in creating demand for quality children's health services.

In addition to CICSS, CARE Kenya is implementing two other community-based projects in the district: water and sanitation (pending re-funding), and women's economic development. CARE's project interventions and collaboration with various stakeholders make possible unique synergies and increased cost-effectiveness through cost sharing. CICSS II will take advantage of existing community groups and organized support in community mobilization, thus maximizing each partner's expertise or comparative advantage.

C. Summary of Baseline Assessments

Two separate Knowledge, Practice(s) and Coverage (KPC) surveys were conducted in the three CICSS project divisions of Siaya District during June 1999. One survey (n= 300) was conducted using a cluster sample methodology in the 23 sublocations and 203 villages which had been included as target areas under the CICSS I project. This survey was used as part of the final evaluation process for that project and permitted comparison of selected indicators with those measured during the original baseline KPC conducted for the project as well as against target values set out in the CICSS I DIP.

The second survey (n=300) was conducted using the same cluster sample methods in the 17 locations within the three CICSS divisions which were not covered under CICSS I but are anticipated to be covered under the CICSS II project (thereby covering all sublocations and communities found in the three divisions of Boro, Uranga and Karema). This survey was conducted to serve as both an end or project comparison with CICSS I areas as well as to develop a baseline for the CICSS II project.

Using appropriate weighting methods (based upon the relative populations of the CICSS I and non-CICSS I sublocations), the two surveys conducted in June 1999 may be combined to give a baseline picture of the entire three CICSS divisions (i.e. CICSS I and non-CICSS combined) as they appear at that time. As CICSS II is committed to full coverage of these three divisions by the end-of-project in September 2003, it will be appropriate then, to use this combined baseline for evaluation purposes at the end of project.

Copies of reports of each survey, questionnaires and data sets are found in Annex C of the DIP. Further analysis and comparisons of the three KPC data sets (CICSS I baseline, CICSS I final and CICSS II baseline) is ongoing with the support of the Rollins School of Public Health, Emory University.

Key results of these surveys will be found in the descriptions of the specific interventions covered by the project (Section 3: Detailed Plans by Intervention).

In general, the surveys clearly support the choice of pneumonia, malaria, diarrhea and measles as the key diseases targeted by CICSS I and II. The survey results are also consistent with the available service delivery statistics for the area as well as conversations and communication by the project with community members and leaders (in fact there is a great deal of apparent (and often vocal) demand within communities for the project to expand its services to include a wider array of diseases and treatments).

The CICSS I final KPC survey demonstrates the project's success in improving access to and utilization of key services by the target population. Most notably these are curative services for malaria and pneumonia and immunizations. Non-KPC results indicate that when the source of care sought was the CHW, more mothers sought care within 24 hours of onset, costs were reduced in many cases and a greater number of children recovered than those seeking care elsewhere ("other"). Immunization coverage in CICSS I sublocations is higher than in non-CICSS sublocations. These apparent successes are confirmed by the reductions in child mortality which have been shown through analysis of mortality records in the project

areas as well (estimated as a 49% decrease between 1997 and 1998 and 45% between 1996 and 1998 by final evaluation report). The project continues to monitor these mortality data.

The KPC surveys also indicate that the project was less successful in meeting set targets in the areas of knowledge and disease prevention behavior change. While some positive changes were shown in these areas (increases in bed net use were shown (15%) but these levels were far below project targets (40%)) results were generally far below targets. Evaluators noted that this was due to the project's limited emphasis on these components relative to the provision of selected curative services in the community. The CICSS II DIP will attempt to address this relative imbalance.

D. Program Goals and Objectives

The CICSS II Project will build upon the foundation of impressive results realized between 1995 and 1999 by the CICSS I project. It will continue to create and strengthen structures at the community level (community health workers, community pharmacies and Sublocational health committees) to manage and deliver quality health services targeting the major causes of under-five mortality and to promote key knowledge, care seeking and behavior changes in the three project divisions. It will build capacity at the household, community, sub-location, division and district level to sustain these structures and their impact. The overall project goal is, therefore:

To improve health status in the Divisions of Boro, Karemo and Uranga by reducing the mortality and morbidity of children under the age of five and women of reproductive age and to increase the capacity of community committees, the Ministry of Health, other local institutions and CARE to sustain these reductions.

The project will achieve this overall goal as it is implemented along four major axes:

- ⇨ **Strengthen provision of quality preventive and curative child health services in 23 CICSS I sublocations;**

- ⇨ **Expand the geographic scope of child health promotion, disease prevention, and curative services to the remaining 17 sublocations in the Boro, Uranga and Karemo Divisions of Siaya District, emphasizing lessons learned from the CICSS I experience(s) in 23 sublocations;**

- ⇨ **Strengthen the capacity of communities (SHCs), DHMT and MOH personnel and health facilities in the project area to complement and support project interventions;**

- ⇨ **Strengthening quality and coverage of community delivery of health services by promoting links between the project and other development activities and operations research.**

Through these approaches the project will achieve the following objective:

➢ **To reduce mortality among the population under the age of five years by 30% in the Boro, Uranga and Karemo Divisions, Siaya District.**

To achieve this objective the project has established the following specific objectives:

- ➢ To promote and improve mother's and caretaker's knowledge, practice and utilization of key preventive health behaviors and services targeting childhood illness in the project area;
- ➢ To build the capacity of 640 (252 new) CHWs to: treat childhood illness according to Community Management of Childhood Illness (CMCI) protocols and to promote improved health practices and care seeking behaviors among mothers and caretakers in the project area;
- ➢ To build the capacities of 40 SHCs (17 new) and 40 BI pharmacies (17 new) at the sublocation level in the project area to: improve the availability of key services; to assume responsibility to supervise, manage and support their CHWs to sustain activity and impact; and to promote key health behaviors and practices;

- To build the capacity of the Siaya DHMT and other MOH health personnel in the project area to assume responsibility and costs to sustain the supervision and management of community based health promotion and delivery systems;
- To participate in national policy dialogue, formulation and implementation related to IMCI and community based approaches to childhood mortality reduction; and
- To increase the capacity of CARE/Headquarters and CARE/Kenya to effectively design and manage community based child survival programs.

Using these specific objectives a project log-frame analysis has been developed. This log-frame has been shared with and discussed with major project partners. As such, it provides an agreed upon road map to guide project implementation over the next three and a half years.

Community Initiatives for Child Survival in Siaya (CICSS) II Project
Log-frame Analysis

Goal: To improve health status in the Divisions of Boro, Karemo and Uranga by reducing the mortality and morbidity of children under the age of five and women of reproductive age and to increase the capacity of community committees, the Ministry of Health, other local institutions and CARE to sustain these reductions.

Objective [1]	**Activities**	**Expected results**	**Indicators** [2]	**Target(s)**	**Means of Verification**
To reduce mortality among the population under the age of five years by 20% in the Boro, Uranga and Karemo Divisions, Siaya District within 4 years.	Train and equip CHWs to implement CMCI treatment protocols Train CHWs and SHCs to become effective communicators of key health messages Build capacity of SHCs to manage and supervise CHWs and BI pharmacies Build MOH capacity to assume responsibility and cost of management and supervision of community structures	Reductions in child mortality due to malaria, ARI, diarrhea and vaccine preventable diseases	# child deaths in project area	30% reduction	Mortality surveillance of civil registration data
Specific Objective	**Activities**	**Expected Results**	**Indicators**	**Target(s)**	**Means of Verification**
To promote and improve mother and caretaker's knowledge, practice and utilization of key preventive health	CHWs educate mothers and caretakers about symptom recognition, danger signs and care seeking behaviors	Increased ability of mothers and caretakers to recognize danger signs of childhood illness and STIs	*# of mother/caretakers with children 0-59 months contacted for counseling and education*	One mother/month for children 0-23 months One mother in two months for children 24-59 months	CHW reports KPC surveys

[1] Objectives in *italics* are considered capacity building objectives
[2] Indicators in *italics* are considered indicators of capacity building

Objective [1]	Activities	Expected results	Indicators [2]	Target(s)	Means of Verification
behaviors and services for childhood illness in the project area.			% mothers who recognize rapid breathing as a sign of pneumonia in child with cough and difficulty breathing and appropriate course of action	60% of mothers and caretakers	KPC surveys
	CHWs educate mothers, caretakers and other community members of preventive and health promotion behaviors	Increased practice and use of key preventive and health promotion behaviors	% mothers who recognize symptoms of STIs and sites where treatment is available	60% of mothers	CHW reports, KPC surveys
			% pregnant women receiving S/P prophylaxis according to guidelines	60% of women	KPC survey, KEPI statistics
			% pregnant women receiving TT immunization according to guidelines	100% of women	KPC survey, KEPI statistics
			% children 12-23 months fully immunized	80% of children	KPC surveys, CHW reports
			% lactating women receiving Vitamin A supplementation according to guidelines	40% of lactating women	KPC surveys, CHW reports
			% children 6-59 months receiving Vitamin A supplements according to guidelines	70% of children 5-59 months	KPC surveys
			% households with ITN for	40% of households	BI pharmacy

Objective [1]	Activities	Expected results	Indicators [2]	Target(s)	Means of Verification
			use by women and children under 2 yrs age		reports
			# condoms distributed through CHWs and BI pharmacies	100% increase annually	MOH and CBD reports
	Increased practice of key health seeking behaviors related to childhood illness	Increased use of appropriate curative services	# of women who do not wish to have a child in the next two years practicing a modern contraceptive method	17% of women	KPC surveys, CHW reports
			# of children with illness in last two weeks treated by CHW or MOH facility staff	75% of children	KPC surveys
			% of children with malaria signs and symptoms in previous 2 weeks treated by CHWs	60% of children	KPC surveys, CHW reports
			% mothers who seek medical treatment for children with rapid or difficult breathing within 24 hours of onset	40% of mothers	KPC surveys, CHW reports
			% of children with diarrhea during last two weeks who were treated with ORT	60% of children	KPC surveys
			% of women with STI symptoms who report seeking "timely" treatment	20% of women	KPC surveys
To build the capacity of 640 CHWs to:	Identify and train 640 CHWs (252 new) in effective	CHWs effectively communicating key messages	Training materials developed *# CHWs trained in*	Yes 640 CHWs (252 new)	CICSS reports Training reports

Objective [1]	Activities	Expected results	Indicators [2]	Target(s)	Means of Verification
• *treat childhood illness according to CMCI protocols; and* • *to promote improved health practices and care seeking behaviors among mothers and caretakers in the project area.*	communication	to mothers and caretakers	*educational techniques* *# CHW education/counseling contacts held*	10 contacts/month/CHW	CHW reports
		Mothers able to recall key messages	# able to recall key messages	75% mothers	KPC survey
		Mothers change in behavior	# practicing healthy messages	25% mothers	Periodic FGDs
	Identify and train 640 CHWs (252 new) in CMCI treatment algorithms	CHWs skilled in treatment and referral of childhood illnesses according to CMCI protocols	Training materials developed *# CHWs trained in CMCI treatment algorithms* # of CHWs who can correctly apply CMCI algorithms for malaria, ARI and diarrhea (including Vitamin A therapy)	Yes 640 CHWs (252 new) 80% of CHWs	CICSS reports Training reports Supervision reports
	Supply 640 CHWs (252 new) with initial drug kits	Drug availability improved at village and sublocation level	*# CHWs equipped with initial stocks of essential drugs* # CHW drug kits with all essential drugs and no stock outs	640 CHWs (252 new) 80% (512) CHW drug kits	CICSS reports Supervision reports
	Train and supervise 640 CHWs (252 new) to manage drug kits on a cost recovery basis	Drug availability improved at village and sublocation level	Training materials developed Supervision tools developed # CHWs with values of drugs and receipts on hand totaling expected value	Yes Yes 80% (512) CHW drug kits and receipts	CICSS reports CICSS reports Supervision reports
	Conduct regular supervision (including service delivery assessment) of 640 CHW activities and performance	CHW performance monitored and improved on a regular basis	Supervision tools developed % of CHWs regularly assessed and supervised	Yes 100% (640) CHWs	CICSS reports Supervision reports

Objective [1]	Activities	Expected results	Indicators [2]	Target(s)	Means of Verification
			% of CHWs performing according to standards and norms for CMCI service delivery	80% (512) CHWs	Service assessment reports
			# of supervision visits conducted according to established schedule	100% of supervision visits	Supervision reports
		Community and MOH capacity to supervise CHWs improved	*% of supervision visits conducted jointly CARE/MOH or MOH independently*	100% of supervision visits	Supervision reports
			# of communities active in supervision of CHWs in their area	75% (30) communities	Supervision reports
To build the capacities of 40 SHCs (17 new) and 40 BI Pharmacies (17 new) at the sublocation level in the project area to:	Identify and train SHC members in 40 sublocations (17 new) in community role in management and supervision of community health activities (including CHWs and BI Pharmacies)	Creation of community structures to support CHW activities and promote health behaviors	*# of SHCs created and trained*	40 SHCs created and trained (17 new)	Training reports, Supervision reports
			# of SHCs holding regular meetings	80% of SHCs	Supervision reports
• *improve the availability of services;*			# SHCs replacing members and CHWs who drop out/become inactive	80% of SHCs	Supervision reports
• *to assume responsibility to supervise, manage and support their CHWs to sustain activity and impact; and*			# SHCs regularly supervising CHWs and BI pharmacy	80% of SHCs	Supervision reports
• *to promote*	Establish and equip 40 BI Pharmacies (17 new) with essential drugs to support CHWs activities	Improved availability of essential drugs at the community level	*# BI pharmacies established and stocked*	40 BI pharmacies (17 new)	CICSS reports

Objective [1]	Activities	Expected results	Indicators [2]	Target(s)	Means of Verification
key health behaviors and practices.	Develop appropriate tools for use by SHCs to monitor and supervise BI pharmacy and CHW activities and train 40 SHCs (17 new) in their application	Strengthened community capacity to participate in health improvement activities	Tools developed *% SHC members trained* *% SHCs using tools to manage BI pharmacies and CHW drug kits*	Yes 85% SHC members 85% SHCs using tools	CICSS reports Training reports Supervision reports
			% BI pharmacies where stock of drugs and receipts on hand equal initial value of drugs supplied or more	80% of BI pharmacies	Supervision reports
		Sustained availability of services and drugs in the community	# of SHCs which have devised and begun to implement CHW motivation mechanisms	50% of SHCs	Supervision reports
	Develop, implement and support mechanisms at community level to motivate CHWs to carry out functions as defined	Support to improved operation of SHCs and BI pharmacies	% of CHWs "active" based upon defined criteria for # visits, cases treated and drug re-supply per month	80% CHWs	Supervision reports
	Develop and implement tools for supervision and support of 40 SHC and BI pharmacies by MOH staff within project area		% of BI pharmacies where value of drugs and receipts exceeds original cost of stocks	80% of BI Pharmacies	Supervision reports

Objective [1]	Activities	Expected results	Indicators [2]	Target(s)	Means of Verification
To build the capacity of the Siaya DHMT and other MOH personnel in the project area to assume responsibility and costs to sustain the supervision and management of community based health promotion and delivery systems	Develop tools for supervision of CHWs, SHCs and BI Pharmacies and train MOH personnel in their application and use	Expanded role for MOH in maintaining quality and coverage of community based services and activities	Tools developed *# MOH personnel trained*	Yes 100% of facility staff and relevant DHMT members	CICSS reports Training reports
			Inclusion of community support and supervision in DHMT and facility budgets	Yes	DHMT and facility budgets
	Train staff at 9 MOH static facility in IMCI treatment protocols	Improved quality of services at MOH facilities Availability of 2nd line referral services in support of CHW treatment	*# MOH static facility staff trained*	100% of static facility staff	Training reports
	Train staff at 9 MOH static health facilities in STI treatment protocols	Improved quality of services at MOH facilities Availability of 2nd line referral services in support of CHW Treatment	*# MOH static facility staff trained*	100% of static facility staff trained	Training reports
	Integrate CICSS HIS activities with those at community level and MOH data systems and needs	Improved capability of MOH staff and DHMT to monitor and mange health activities in the District	Coordinated HIS functioning with CHW, VHC inputs as defined	Yes	HIS system reports including community data
			# MOH staff trained in HIS operation, etc.		Training reports
To participate in national policy dialogue, formulation and implementation related to IMCI and	Periodic/regular meetings with DHMT, PMO and MOH Participation in national forums on IMCI development and	National IMCI policy and plans include community level structures to complement facility based IMCI and expand coverage of IMCI	National IMCI policy guidelines include community structures and approaches # districts implementing	Yes 5	Policy Documents MOH

Objective [1]	Activities	Expected results	Indicators [2]	Target(s)	Means of Verification
community based approaches to child mortality reduction.	implementation Exchange visits with other NGOs supporting IMCI implementation	benefits	community based IMCI # PVOs/NGOs implementing programs which include community based approaches to IMCI	 5	documentation PVO/NGO reports
To increase the capacity of CARE/Headquarters and CARE/Kenya to effectively design and manage community based child survival programs	Exchange visits with other projects (Kenya, regional) implementing IMCI at community level Exchange visits by CARE and other NGO/PVOs implementing IMCI Participation in annual CARE child survival workshop Submission of project results for publication, presentation at recognized technical forums, journals, meetings Development of lessons learned document(s) on community based IMCI programming and results	Enhanced vision of strategies and approaches to enhancing child survival programs through community based approaches Improved results and impact for CARE child survival projects in Kenya and elsewhere	# exchange visits to other projects		
To build the capacity of the communities to a level of phase over	Identify key sustainable elements Conduct Assessments in 6 S/locations to establish the level of each key element.	Strengthened community participation and support for managing identified key sustainable elements with minimal support from MOH/CICSS .	# of clearly defined key sustainable elements # of assessments carried out # of capacity building sessions held	6 Sub-locations	Assessments reports Interviewing VHCs/SHCs

Objective [1]	Activities	Expected results	Indicators [2]	Target(s)	Means of Verification
	Strengthen areas of weaknesses in each key element		# key successes documented - increased participation - increased demand for services - increased utilization of information at community level for decision making		
	Phase out sites completed and new sites for phase out identified.		Number of communities phased out.		

E. Program Design

The CICSS II project will build the capacity of local structures and institutions that will promote, support and manage key personal behavior changes and the delivery of key child health services. These behaviors and services have been shown by the CICSS I project to be capable of reducing the high levels of child morbidity and mortality found in the Boro, Uranga and Karemo Divisions of Siaya District, Kenya. The CICSS II project will strengthen the provision of the CICSS I services and interventions, expand their geographic scope to cover the entire three divisions and explore mechanisms to make both interventions and their impact sustainable after the end of CICSS II funding in September 2003.

Building these capacities at the household, community/village and sublocation level requires a two-step approach. The first step involves community mobilization, the identification of CHWs and their training and equipment, creation of the SHCs and training of its members and the creation and stocking of the BI pharmacies. This phase of the project is labor and resource intensive. It requires substantial inputs from the project for both training and close supervision. This is necessary to insure that CHWs are correctly following clinical guidelines, SHCs are assuming their defined role in management and oversight of the CHWs and the functioning of the BI pharmacies to insure a stable and permanent supply of the key drugs and other materials. All of these elements are required to support the key health behaviors and services which comprise the CMCI approach. All 23 of the CICSS I sublocations are in this phase of development. As sublocations reach a defined level of activity and functionality, they will move to the next step. As sublocations "graduate" to the next phase, new sublocations will be introduced to activities of step one until the entire divisions of Boro, Karemo and Uranga are covered. It is anticipated that the activities in the uncovered sublocations will commence by 2001 and continue until the end of project date in 2003.

The role of project staff will shift from direct supervision and problem solving to one of building community and SHC capacity for greater direct involvement in the interventions.

Table 3: SUMMARY OF THE KEY CICSS II ACTORS

KEY ACTORS	CRITERIA FOR IDENTIFICATION	SPECIFIC ROLE
1.Community trainer of trainers (TOT)	Should be a CHW Should be CHWs trained on CMCI and with best performance Should be willing to support other CHWs even after the end of the project. She/he should have a good reputation in the community Should be literate with standard 8 of education and above	Support CHWs in CMCI in liaison with the MOH staff trained in CMCI
2.Community based distributor of contraceptives (CBD)	A CHW trained in Family Planning Should be literate standard 7 and above Willingness to volunteer A permanent resident of a community	Distribution of contraceptives Health education to community members Counseling of FP clients
3.Sublocational Health Committee/VHC	Willingness to volunteer Should be selected or elected by the community members Should have leadership skill s Should have good reputation in the community and a resident of a sublocation. Should be literate	Supervise the CHWs Manage BI Finances Extract, enter, analyze interpret community health information data Mobilize the community members for the project benefits
4.Communtiy Health Worker	Should be literate standard 7 and above Should be able to volunteer Should be a resident of that community	Treat children 0-5 years (CMCI) Health education to mothers and caretakers on the key note Motivation of mothers to go for immunizations

The second step will also involve actions to promote a greater and more direct role for the MOH static facility personnel and DHMT members in supervision of the CHW, SHCs and BI pharmacies. The project will devote considerable effort during the first year (2000) to defining the exact role and modalities for MOH involvement. It must define a level of MOH support and supervision which is **capable of maintaining the quality of CHW delivered services while being financially affordable**. The Project will train MOH personnel to assume this expanded role in supportive supervision. The project will also estimate the recurrent cost of supervision by the MOH and assist the DHMT in allocating and identifying the resources required for it to sustain its role in improving the health and well being of women and children in the covered sublocations. A key to the success of activities at this phase (and the ultimate sustainability of project impact and activities) will be the ability of the MOH to commit sufficient resources to the supervision and management of the community systems. The project will continually assess indicators of the MOH's willingness and ability to assume both responsibility and cost of sustaining the CICSS model.

The geographic expansion of the project to cover the remaining 17 sublocations of the three project divisions will commence in the year 2001 based on the phase out/phasing schedule shown in Table 4 below. The project will identify indicators of the key sustainable elements as the management of childhood illness, service demand for the project interventions and a functioning community health information system. The project will monitor progress towards sustainability in these areas. These will be strengthened in identified 6 sublocations to be phased out by the end of year one. Expansion into new sites will be based on lessons learned from these experiences implementing and supporting the CICSS I model. Geographic expansion of project services will be conditional upon the progress made in these key areas.

Two "new" sublocations have already been mobilized and SHCs created and are now set to begin activities at the start of CICSS II. Rather than ask these communities to wait, activities in these sublocations will be initiated bringing the number of sublocations functioning under the CICSS I/structure development model to 25 early in Year 1 of CICSS II.

Despite the obvious challenge of strengthening communities and MOH partners to deliver and sustain key child health services, the project anticipates the following phasing out/phasing schedule.

Table 4: PLANNED EXPANSION OF CICSS SERVCIES IN PROJECT DIVISIONS

	Year 1	**Year 2**	**Year 3**	**Year 4**
Structure building phase	23	25	25	10
Phased out	0	6	17	30
Phase in	2	6	9	0

The CICSS II/CMCI approach and its interventions are best described/summarized by grouping them according to the level at which they are targeted. These levels and the principal institutions/Partners with which the project will work at each level are:

- **Household (caretakers): To increase the capacity and frequency of mothers and other caretakers to practice culturally appropriate and timely health seeking behavior when faced with a sick child, to promote key preventive behaviors among mothers and other caretakers and to provide quality care for the sick child**

Mothers and other caretakers need to be able to make informed decisions to resolve their children's health problems. Increased confidence, skills and community resources are important requisites for doing so. Appropriate and sustained communication, health promotion, prevention and counseling are essential in this context. These activities must be backed up with accessible, quality curative services. This is important to build credibility and to save lives.

The project, with the assistance of Johns Hopkins University Communications Support Program, has conducted a thorough IEC "P" process in the project area. This resulted in the development of an IEC strategy by the project outlining the messages and media that will be used to reach mothers and caretakers through the project. The project will depend upon CHWs, SHCs and CBAs as the principal means by which to communicate with and educate with mothers and caretakers. Mothers and caretakers will be taught preventive behaviors and practices, recognition of danger signs of child illnesses (malaria, ARI, diarrhea), appropriate care seeking behaviors and the availability of services not delivered by CHWs such as child spacing.

At the household level the project will support:

- Direct education and counseling of mothers and caretakers by CHWs on key preventive and health care seeking behaviors and availability of services;
- Individual and group education and counseling of mothers and caretakers by SHC members and CHWs on key preventive and health care seeking behaviors and availability of services;
- Treatment of sick children for ARI, malaria and diarrhea by CHWs following established CMCI guidelines and algorithms;
- Distribution of S/P as malaria prophylaxis to pregnant women by CHWs;
- Distribution of Vitamin A capsules to lactating women according to CMCI guidelines and algorithms by CHWs; and
- Distribution of Vitamin A capsules to children 6-59 months according to CMCI guidelines and algorithms by CHWs.

- **Community/Village (CHWs): To expand the geographic scope and increase the capacity of CHWs to provide quality and expanded community services and communication to prevent and treat selected childhood illnesses using appropriate case management techniques.**

First and foremost the CHWs role in the community is as a health educator and promoter of important health and health care seeking behaviors. To this role the CICSS Project has added a limited (and closely supervised) set of clinical and curative skills to provide first line treatment for the three major causes of child mortality in the region. The project's training strategy, therefore, emphasizes, activities to train them to become effective communicators so they can improve mothers and other caretakers' capacity to prevent sickness at the household level, manage sick children, and identify and use local resources. CHWs will also be trained to help mothers to improve household recognition of child illness, counsel caretakers, make referrals and assure treatment compliance. CHWs will promote the use of impregnated bednets to prevent malaria.

To allow CHWs to treat the three most common killers of children (malaria, ARI and diarrhea) CARE has adapted WHO IMCI clinical algorithms for the treatment of these diseases. The package developed has been dubbed Case Management of Childhood Illness(s) (CMCI). CHWs are trained in the correct application of the CMCI treatment protocols. They are then equipped with an initial stock of drugs (sulphadoxine/pyrimethamine (S/P also known under its brand name as Fansidar), levamisole, cotrimoxazole, paracetamol, ORS packets, Vitamin A capsules and aluminum hydroxide) necessary to carry out those protocols. The MOH has formally approved the use of all of these drugs by CHWs. CMCI treatment protocols are all consistent with appropriate MOH guidelines for treatment of the targeted diseases. The drugs are dispensed by the CHWs to sick children. There is considerable community demand to increase the range of drugs available in the kits and to include drugs and dosages for the treatment of adult illness as well. The drugs are sold in an effort to recover their cost so that the CHW may replenish his/her drug kit from the BI pharmacy located at the sublocation. Drug prices are set by the SHC within broad, general guidelines set by the project. These prices include a modest (but variable) mark-up beyond the purchase price of the drugs to the pharmacy. The "profit" thus generated is retained by the SHC in the BI pharmacy account. CHWs receive no financial remuneration for their services.

CARE will make maximum use of CHWs and SHCs for drug distribution, administration, treatment and referral, and presumptive treatment of malaria during the first and second trimester of pregnancy using S/P the MOH's designated first line anti-malaria drug. Impregnated bednets use and IMN re-treatment will be promoted as well. CHWs also promote and distribute S/P to pregnant women as a prophylactic measure against malaria (which has particularly adverse effects on the fetus and subsequent morbidity and mortality

for the newborn). Effective use of antibiotics will be promoted through CHWs who have a MOH mandate to use cotrimozole for treatment of pneumonia at the village level.

The project will emphasize cereal-based home fluids and the MOH standard ORS sachets for the treatment of diarrhea. CHWs will strengthen the knowledge and skills of mothers to recognize and refer complicated cases (severe illness) to CHWs and health facilities. The project will work with SHCs to ensure continued availability of ORS in the community pharmacy and from CHWs. In communities where CICSS II overlaps with CARE water and sanitation programs (SHEWAS), consistency of messages and approach, particularly hygiene practices will be ensured.

The CMCI approach has pioneered the integration of Vitamin A as part of community based case management strategies. Vitamin A is administered to sick children. The capsules are sold on a cost recovery basis as all drugs in the CHW kit are. In addition the CHWs promote and distribute Vitamin A capsules as a nutritional supplement to all children 6-59 months of age and to lactating mothers.

CHWs will promote full immunization of infants by one year and TT immunization of women (especially pregnant women) ages 15-49. The project will assist communities to establish simple immunization surveillance systems to be carried out by the CHWs to track women and children who have not yet been fully immunized. The CHWs will then link up with the SHCs to ensure that all children under five have completed immunization. Women of childbearing age will be encouraged and motivated to receive TT during their regular contacts with the health system. The benefit derived from measles protection extends to reductions in ARI and diarrheal disease related mortality for children as well.

The CICSS II community level structures will address the STI/HIV/AIDS epidemic through the promotion of improved recognition of symptoms and care seeking behavior among men and women in the project area as well as increased access to condoms through community based channels. CHWs and VHCs will be educated and motivated to become community educators about the symptoms of STIs as well as appropriate care seeking behaviors (i.e. visit MOH facility for prompt treatment). The messages are simple and direct. The project will also look for other existing community structures (local youth groups) through which it will attempt to pass these important messages. These same structures will also be encouraged to act as community distribution points for GOK furnished free condoms (free condom distribution at MOH static health facilities is consistent with current MOH STI/HIV/AIDS programs and policy). Owing to the magnitude of the problem and the limited resources available, CICSS II will devote relatively few resources to HIV/AIDS issues. The project will concentrate its efforts on development of systems capable of reducing mortality due to malaria, pneumonia, diarrhea and vaccine preventable diseases. This approach was chosen in order to have the greatest measurable impact on child mortality during the four year length of project.

Contraceptive supplies are available in many of the villages in the project area through a network of Community Based Distributors (CBDs) which have been trained, supplied and supported by the MOH in collaboration with GTZ. Not all of the villages in the project area have a CBD, however, limiting the access of women in those villages to modern contraceptive methods. The project will sponsor the training of additional CBDs (using the MOH/GTZ courses, materials and resources) to insure uniform coverage and improved access to the entire project area. The project will explore the possibility of including contraceptive supplies in the sublocation level BI pharmacies, which have been established in order to facilitate, re-supply of all CBDs in the area.

To promote these activities, then, the project will support:

- Training of CHWs in CMCI for effective facilitation and health education (TOT approach):
- Training of CHWs in key personal behaviors, disease prevention and appropriate care seeking behaviors for mothers and caretakers around malaria, ARI, diarrhea, immunizations, Vitamin A, child spacing and STI/HIV/AIDS prevention (TOT approach);
- Training of CHWs in effective communication skills (TOT approach);
- Training of CHWs in behavior change methodologies, using innovative approaches such as drama and PET (TOT approach);

- Training of CHWs to use S/P to treat children aged 2-59 months with fever according to CMCI protocols (TOT approach);
- Activities targeting leaders and SHCs to motivate communities for bednet purchase and use;
- Training and motivation of CHWs to assess, classify, treat and counsel caretakers with children 0-5 years (with special emphasis on 0-2 months) for ARI according to CMCI protocols (TOT approach);
- Training of CHWs to provide initial ARI treatment to very sick children and then refer them to the nearest static facility within 12 hours and follow-up care seeker compliance (TOT approach);
- Training of CHWs to correctly assess and manage a child for dehydration and refer to MOH static health facilities for severe dehydration according to CMCI protocols (TOT approach);
- Training of CHWs in disease-targeted distribution of Vitamin A capsules according to CMCI guidelines (TOT approach);
- Education of communities on the importance of immunization and mobilization for immunization services at static facilities and outreach sites;
- Training of CHWs and village leaders to promote immunization and to follow-up children ages one for immunization using maternal/child registers (TOT approach);
- Equipping of CHWs with kits of essential drugs (including condoms) for use or distribution according to CMCI and other relevant guidelines; and
- Sponsorship/financing of training of CBDs in villages where they do not currently exist to improve availability of child spacing services and contraceptives.

- **Sub-Location (SHCs, BI Pharmacies, and static health facilities): To increase the capacity of SHCs to manage health activities within their sublocations and to support the development of operational community pharmacies (BI pharmacy) in all the sublocations.**

CICSS II will promote progressive community and SHC empowerment to assume a greater role in the management and supervision of CHWs and BI pharmacies. The SHCs are the driving force of the community based health activities. The current system of support and participation in place is fragile and may not provide needed support and guidance beyond the sublocation to the village level. Based upon experience, CICSS II will pilot test options for establishing village health committees so as to build a stronger base and a more direct link between communities and CICSS structures for creating and nurturing a sense of ownership of SHCs, CHWs, BI pharmacies and their activities by the communities. This will hopefully increase interest, participation and accountability by community members. The Project will identify existing Sublocational Development Committees and then empower them to manage their BI pharmacies and to address other health issues at sub-location level. Village Health Committee members will be identified to participate in the Sublocation Health Committee.

Other options which the project will pilot -test include identification of the existing traditional structures (including traditional healers) in communities and building their capacities to assume responsibility for and own community-based health activities. The benefits of this strategy must be weighed against the added cost to the project of creating such a large number of committees (approximately 640 within the three project divisions).

The BI pharmacies are not an end unto themselves, but should function as a central location/resource center where priority health and other development activities regularly take place. In addition, a small stock of priority drugs should be available and affordable at all times, including condoms and ORS. Lessons learned indicate that BIs need flexible functioning inventory and drug supply systems. Each community must establish individual profit margins, accountability mechanisms and balanced community-managed bank accounts. The project will focus its efforts on control and re-supply of drugs and utilizing appropriate guidelines and "fail-safe" back-up systems for purchasing essential drugs. It will continue to define methods to build community capacity to effectively manage and supervise the pharmacies and to promote and implement strategies to empower them to do so.

Static health facilities will be assessed in order for the project to assist the MOH to develop and implement plans to have them fulfill their role as effective second line center. Staff will be trained in correct IMCI implementation. Constraints to service delivery will be identified and plans developed to overcome them.

The project will support:

- Training and empowerment of SHCs in leadership, financial management, conflict management, cost recovery, administration and decision making;
- Development of appropriate community-based information systems (chalkboards, etc.) to support SHC management, supervision and decision making;
- Development and implementation of innovative ways of community-based remuneration/incentives for CHWs and SHCs;
- Health advocacy for RH/HIV/AIDS/STI control and prevention through community mobilization by CHWs and SHCs;
- Assessments of static health facilities capacities to deliver essential services such as CMCI, treatment of referrals form CHWs, immunization, child spacing and STI treatment;
- Training of MOH personnel in implementation of IMCI and other key preventive service delivery strategies such as immunizations, child spacing and STI treatment;
- Provision of initial stocks of essential drugs and other materials (bednets, re-treatment chemicals, and condoms) and instigate cost recovery mechanisms to maintain a stable supply of all products for use by CHWs;
- Exploration of community financing mechanisms and subsidy strategies for essential drugs and other supplies to allow for equity of access even for the poorest members of the community;
- Training of appropriate BI managers in simple procedures of community pharmacy and financial management;
- Mechanisms for community leaders to discuss common issues and concerns such as drug supply mechanisms in order to take collective action;
- Promotion of BI pharmacies as resource centers for their communities; and
- Assistance to communities to develop innovation income and revenue generation schemes to address issues such as pharmacy construction, financial motivation of CHWs and SHC members.

- **District (CARE, MOH, and partners): To establish effective partnerships among CARE, MOH, local administration and other counterparts and to improve capacity for quality HIS procedures and management at all levels (CHWs to MOH).**

At the district level CARE will build the capacity of its MOH partners to assume responsibility for support of the community structures created by the project. A detailed Memorandum of Understanding (MOU) will be drawn up among CARE, community Chiefs and the DHMT to ensure that all parties understand roles, responsibilities and expectations for the future of community based health services. CARE will support capacity building activities for static health facilities to implement IMCI according to MOH policy and guidelines and to act as a dependable, quality referral center for cases which do not respond to CHW administered treatment or are not included in the limited CMCI algorithms.

The project will support/provide:

- Assessment of MOH static health facilities capabilities in terms of knowledge, skills, equipment and supplies to carry out their designated role in support of community based activities;
- Assistance in procurement of basic equipment for nine MOH health facilities through UNICEF or other appropriate sources:
- Sponsor training of MOH personnel in IMCI treatment algorithms and their implementation;
- Sponsor training of MOH personnel who have not yet received training in standard diagnosis and treatment protocols for STIs;
- Development of joint CARE/MOH quality support strategy for community based structures and MOH facilities;
- Joint CARE/MOH training and supervision of extension staff, CHWs, SHCs in CBC approaches, including empowering a cadre of trainers (TOTs);
- Training and supervision (jointly) of extension staff, CHWs, SHCs in CBC methodology to promote improved knowledge and health care seeking behaviors among the population in the project area;
- Continuous training needs assessments, refreshers and upgrades among the CHWs, SHCs, CARE staff and MOH personnel in all aspects of the community based approach and its support and supervision;

- On-the-job training to CHWs, SHCs, CARE staff and MOH personnel in data analysis, interpretation and use at their respective levels;
- On-the-job training to SHC members in chalkboard (HIS) management and its use as a management tool to support CHW activities and make decisions to improve services and community health;
- Periodic reviews of data collection tools and reporting formats at all levels and implementation of plans to harmonize project and MOH HIS and other data systems.

F. Strengthening of Local Partner Organization(s)

A partnership is a mutually beneficial alliance between organizations where roles, responsibilities are clearly defined. Partnerships contribute resources jointly, and share risks, control of program, financial information and planning. In the next project phase, the project is committed to establishing true collaborations with its partners, especially the Ministry of Health and the community. They will be involved in all stages of project planning, co-ordination and decision-making. A three way agreement will be drawn up between the project, the SHC and the MOH in order to ensure clarity of role and responsibilities, support and locally managed mechanisms. Advantage will be taken of the collaborations established in CICSS I, which will be strengthened, in the next phase. These collaborations are summarized in the following table.

Table 5: PRINCIPAL CICSS II PARTNERS

PARTNERS	What They Do	How We Work Together	Formal Agreement
Ministry of Health	Main health service provider in Siaya district. One District hospital in Siaya town with 8 dispensaries in the project area	Involved in project design and implementation plans Involved in training and supervision of CHWs and community activities Manage referrals from CHWs Facilitate mobile immunization clinics	Under development/ negotiation
Diocese of Maseno West (DMW)	Health service provider in Siaya with a system of CBDs and an HIV/AID prevention project in the project area	Provision and replenishment of drugs to communities Manage referrals from CHWs	YES
Nyambare Health Centre	Health service provider	Provision and replenishment	YES
Catholic Diocese - Mbaga Mission hospital	Health service provider	Manage referrals from CHWs Proposed provision and replenishment of drugs	Under development/ negotiation
Mission for Essential Supplies (MEDS)	A Community Based Organization that supplies drugs and medical equipment to church based health facilities	Supplied initial community drug stock Supply the DMW and Mbaga mission hospital with drugs	YES
Provincial Administration	Co-ordination of the development in the district	Mobilization of community Security of community pharmacies	NO
Ministry of Culture and Social Services	Co-ordination of community groups among other functions	Facilitate the provision of authority to community groups Regulate the registration of community groups	NO
Community, SHC	Stakeholder	CHWs responsible for actual project interventions – treatment of childhood illnesses SHC responsible for the overall management of the community activities	Under development/ negotiation

The principal project partners are discussed separately:

⌦ District Medical Office of Health

The Ministry of Health is clearly the project's closest and strongest partner. The project has maintained close ties with them during project implementation throughout the last four years. The District Medical Officer of Health (DMOH) has approved the continuation of the CICSS project and has confirmed his commitment to broaden the base of primary health care and prevention. The DMO is the chairman of the district Health NGO consortium which conducts a quarterly meeting of all NGOs working in the heath

sector in the project area. The consortium seeks to create a collaborative network to strengthen impact and avoid duplication of efforts. The project has worked closely with the District Health Management Team (DHMT) which overseas all health initiatives in the district in the following key areas.

- The development of the project training guides – a core group from the DHMT has been involved in this process;
- Training of CICSS and MOH staff in the CMCI approach – At least one staff from the district hospital has been involved in all training;
- Continued supervision and in-service training of CHWs in the project area. This is carried out by the staff at the rural health facilities who have been trained by the project on CMCI and the therapeutic supplementation with vitamin A;
- Validation and strengthening of the HIS system. The project has involved MOH HIS staff in all it HIS assessments and it is the plan that all the data collection and reporting tools are standardized for easy reference;
- Participated in both the mid-term and final project evaluations;
- Participation in both CICSS I and CICSS II DIP preparations; and
- Participated in both the final KPC survey and baseline survey of the new project areas. The MOH have also been involved in all other surveys undertaken by the project has undertaken, e.g. the Vitamin A Food Frequency Survey where they were involved all aspects of data collection and analysis.

Linkage with the MOH at the district level has been important for establishing the framework for sustainability when the funding ends. A task force of the project and the DHMT has been working closely to establish an agreement (MOU) where roles and tasks of both the MOH and the project are defined and to affirm the MOH's commitment to particular activities to improve Child Survival.

⌧ National MOH

National MOH officers were met to reaffirm their commitment to CICSS II activities. They include the Director of Medical Services and the Head of the Primary Health Care unit who assured the project of their continued support. The MOH is currently undergoing Health Sector reforms, and partnership with NGOs will be an important component in increasing access to improved heath services and positive health behavior. The new Provincial Medical Officer expressed interest in visiting the project in the next month to assess the impact of the project in the area.

⌧ Provincial Administration

The Provincial Administration, which is the government arm responsible for overseeing all development efforts in the district, is the most effective channel for mobilization. This starts from the District Commissioner level, to the District Offices at Division level, the chiefs at location level and the assistant chiefs at the smallest administrative unit, the sublocation. The DIP team met with the District Commissioner who commended the CICSS project for the efforts it has been making towards child survival and for continuously updating the District Development Committee on its project activities.

⌧ Community

The MOH, community and health partnerships established in the development of this DIP are strong, unique and sustainable. CICSS II is committed to empowering the community to make positive decisions about their health. Strong community involvement is important to promote ownership of activities. As part of the DIP process, the project met with 25 community leaders, chiefs, assistant chiefs and councilors, 25 Sublocational health committee members from 7 sublocations and 16 CHWs from one community. This was to reaffirm their commitment to the CICSS II and also to plan forward from the lessons learnt from CICSS I. All these partners endorsed the project fully and committed themselves to participate actively in project activities in the next phase. They also committed to try and solve the many challenges that have been realized with the support from the project and the MOH. The community elders promised to take a more aggressive role in solving the problem of CHW incentives in the project area.

⌧ Other CARE projects

Currently, the only CARE project active in the project area is the Women Economic Development project (WEDCO) which is a micro enterprise project that provides loans to small businesses. The project CHWs as a group do not meet the criteria to get loans from this project. This is because WEDCO assissts groups that are already running a business, while the community pharmacy does not meet their criteria as a business. The Water and Sanitation project (SHEWAS) and the Agro-Forestry project (AF project) have been completed and closed during the past two years. Nevertheless, the project intends to work through structures that have been established with these projects, for example the Location Agricultural Committee to promote vitamin A rich food and the hygiene promoters for health education and ORS promotion in cases of cholera. A proposal for a follow on project to the water and sanitation project which will address broader aspects of using CARE's Household Livelihood Security framework as a model has recently been funded and it will be based in some divisions in Siaya district as well as a neighboring sublocation.

⊠ Other International PVOs

World Vision, which was recently awarded a grant by USAID to start a Child Survival project in a neighboring district, participated in the CICSS II DIP development process. This was to learn from the process in preparation for their upcoming DIP. CICSS II is committed to sharing lessons learned with this new project and participate in the development of their project, including sharing of developed training manuals and other guides.

Plan International, which is also implementing a Child Survival project in the coast region, has also expressed an interest in learning from CICSS experiences visited the project to learn from us and more visits are anticipated in the future. CARE Kenya will form part of the CORE Kenya group, which is a network of Child Survival projects in the country.

UNICEF who participated in the CICSS I final evaluation and has expressed interest in getting more involved in phase two project activities. They have recently developed a national strategy for the next five years, which calls for more partnership with organizations in their project area. The CICSS project through the MOH, recently submitted a proposal for the purchase of 5000 bed nets to a fund managed by UNICEF to support innovative community initiatives. Technical materials and advice on IMCI will be periodically sought from the local **WHO** office.

The project plans to aggressively network with **AMREF** which has had extensive experience in working with community groups, BI pharmacies and community financing in the country. Cross visits are planned in the next project phase.

G. Strengthening the PVO Organization

The CICSS II project presents an important opportunity for CARE to become a leader (certainly within the context of African countries) in the modification and adaptation of IMCI strategies to move from the static health facility down to the community level. WHO has yet to develop guidelines or strategies for taking the IMCI approach to that level. Clearly this is an important step given the low levels of coverage and utilization of services delivered by static health facilities throughout Africa. CICSS will allow CARE to develop its expertise in this area and to become a leader in the field. By careful documentation of project results and impact (see discussion of monitoring and evaluation) CARE will expand its understanding of this "cutting edge" issue. CARE will be able to incorporate and leverage this expertise in the development of future child survival projects and through its integration into other health related projects worldwide.

The CICSS project will also provide an opportunity for CARE to increase its understanding of how to define and build ownership and therefore sustainability for community structures to support health services delivery. While the project did not follow a strict community empowerment strategy initially (i.e. the solutions to high child mortality, CHWs, etc. were defined externally rather than by the community) the project must now attempt to build ownership and support among communities for CHWs, SHCs and BI pharmacies if they are to continue to function beyond the end of CICSS project funding and support. This will include finding community based mechanisms to compensate/motivate CHWs in order to maintain the activities and therefore their impact. CARE will become a leader in the field of community based health delivery mechanisms if it can successfully find solutions to these issues.

The annual CARE workshop for all CS grantee projects (and other relevant health projects as well) will provide a ready-made forum to allow the results of the CICSS project to be shared with CARE projects worldwide. In this way CARE country staff and their project will be strengthened by the CICSS experience. The workshop to be held in May 2000 with its theme of sustainability will, for example, rely heavily on material from CICSS as a case study in building community sustainability for local health structures. CARE's dedication to identification and sharing of "best practices" will allow the results and experiences form the CICSS II project to directly strengthen existing projects as well as build capacity to design better projects in the future.

The capacity of project staff from other CARE CS projects will be developed by allowing and promoting cross visits to the CICSS site. The CS project in Tanzania has already planned a visit to Siaya in advance of its plans to expand the role of CHWs in its project zone (Kwimba and Missungwi districts) to include diagnosis and treatment of presumed malaria cases with S/P. CARE/Tanzania's ability to build upon the lessons learned and models developed by CICSS will be an important indicator of the opportunity for CARE capacity growth through CICSS.

It is also important to note that the CICSS project is also collaborating to build the capacity of other CS grantee PVOs as well. Both Plan International and World Vision participated as observers in the preparation of the CICSS II DIP. CICSS project results have been shared through both CORE group and CSTS project channels with a broader PVO audience. The project has hosted a number of site visits by PVOs wishing to learn more about the mechanics of community based IMCI and its implementation.

The impact of CICSS will be seen directly in the number of projects, which include these approaches and strategies in their design in the future.

H. Sustainability

The major challenge facing the CICSS II project is to identify and promote/support community mechanisms capable of sustaining the significant impact on child mortality in the project area that has been realized under CICSS I. To this end then, the project defines sustainability in the context of CICSS II as:

The ability of local structures and institutions (household, community and MOH) to promote, manage, support and maintain personal behaviors, the delivery of services and collective actions capable of sustaining improvements in health and reductions in child mortality in the absence of external assistance.

As such, sustainability is clearly a complex issue that requires careful attention over the life of the project. The CICSS II project sustainability strategy recognizes several different "types" of sustainability, which must necessarily be addressed if the overall goal/definition is to be achieved. These are:

- **Financial:** Financial sustainability refers to the ability of community structures and local institutions to continue to provide the inputs necessary (not exclusively financial, but material as well) to promote, manage and maintain the key behaviors, services and collective actions necessary to sustain project effects and impact.

- **Organizational/Institutional:** Organizational/institutional sustainability addresses the ability of communities, groups and institutions to continue to support, manage and sustain the key behaviors, services and collective actions necessary to sustain project effects and impact.

- **Human:** Human sustainability refers to the ability of community and other local human resources to continue to promote, manage and maintain the key actions and interventions necessary to sustain project effects and impact.

- **Material/Technological:** Material/technological sustainability refers to the availability and continued functionality of the materials and technologies necessary to maintain the key actions and interventions necessary to sustain project effects and impacts.

- **Social:** Social sustainability refers to the sustained demand by local beneficiaries, consumers and participants for the key behaviors, services and collective actions necessary to sustain project effects and impacts.

- **Political/Policy:** Political/Policy Sustainability refers the continued support of political and policy institutions for the key behaviors, services and collective actions necessary to sustain project effects and impacts.

The overall sustainability goal for the CICSS II project is to create an environment capable of sustaining the project's impact (reduction of infant and child mortality). In order to do that however, it appears that a number of the (currently) provided project inputs may also need to be sustained.

Based upon the CICSS I experience, the project has identified a number of threats to the sustainability of both impact and the inputs required to sustain it.

- **The CICSS I model for the support and supervision of the community-based structures to improve child health is too costly and therefore unsustainable with current resources (human and financial).**

- **The CHWs and to a lesser extent SHC members lack sufficient motivation mechanisms to maintain the high levels of activities required to bring about significant reductions in child mortality (human and financial).**

- **The financial solvency and sustainability of many of the CHW revolving drug funds and several BI pharmacy drug funds is in doubt (human and financial).**

- **The ability of the project to define an affordable and feasible supervision package and the willingness of its partners (community and MOH) to assume responsibility and cost of implementing this supervision package after the end of project inputs (financial, technical, human, social, political/policy).**

It must be stated clearly that these **sustainability issues are the key questions facing the CICSS II project**. The project will not commit to the expansion of its coverage area using a model (such as the current) of creation and support for CHWs, SHCs and BI pharmacies, which it considers unsustainable. The project will therefore attempt to resolve these issues prior to initiating plans to extend the reach of project strategies. This is an important deviation from the original CICSS II grant proposal. This change is justified given the importance placed on sustainability by both USAID and CARE. The expansion of project coverage using a costly and ultimately unsustainable model for service delivery improvement would be irresponsible.

Several strategies will be employed by the project to address these threats and to build towards all types of sustainability. They include:

Cost Recovery: The project will increase the availability of key essential drugs and materials (principally bednets, re-treatment chemicals, condoms) in support of the application of the CICSS I developed CMCI approach and its treatment algorithms. The project will do so in a way that addresses the question of the financial sustainability of efforts to increase drug availability. All of these drugs and supplies (except condoms that are received and distributed free) are sold by the sublocation based pharmacies to CHWs on a cash and carry basis in order to recover their costs and therefore ensure their availability. CHWs in turn sell the drugs and supplies to patients or their caretakers as indicated by the CMCI treatment algorithms.

The project has already equipped CHWs in 23 sub-locations with an initial kit of drugs to sell to patients. It has also established 23 BI pharmacies in those same locations to serve as re-supply points for the local

CHWs. At present, all BI pharmacies continue to function although there have been reported difficulties with patients who are unable to pay for drugs received (creating a deficit for the CHW's revolving fund) and CHWs who have "borrowed" from their revolving drug fund. Both situations endanger the sustainability of the funds and therefore drug supply in those communities. The project will address this issue with continued training and supervision of CHWs. It will also encourage and support communities to come up with solutions to this problem such as: creation of loan funds to support the treatment of indigent patients, loan fund for CHWs so that they may insure the viability of their drug fund, other financial incentives for CHWs to eliminate the need for them to "borrow" from their drug fund and the possibility of supporting other income generating activities for CHWs so that they will not need to "borrow".

Indicator(s):

- **Number of CHW drug funds which are debt free and functioning according to established guidelines and principals**
- **Number of BI pharmacies which are debt free and functioning according to established guidelines and principals**

Partnership: This is a key sustainability strategy for CARE in its projects worldwide. The development and/or strengthening of relationships with local, permanent institutions and organizations will provide a stable and sustainable framework to sustain project activities beyond the termination CICSS funding and support. In the case of CICSS II, the principal local, sustainable partners will be the communities themselves and the MOH (DHMT, RNO and central MOH level). CARE must, through the project, build both capacity and ownership within these partners in order to assist them to assume responsibility for sustaining the key health services which CICSS has promoted. **The project must go beyond its current state of appreciation for those services and develop a strategy to promote ownership.**

Indicator(s):

- **Number of joint supervision visits**
- **Number of joint training programs and workshops conducted**
- **Number of supervision and training activities carried out by partners alone**

Capacity Building: This strategy will be employed aggressively by the project in order to address issues related to human sustainability. Capacity building will be used to ensure that local and community individuals, structures and institutions have the capabilities and skills needed to carry on with project activities and therefore sustain project impact. The capacity building activities planned for the project are described in detail below (see Section 1: I Training). Capacity building activities are planned for all levels of project intervention (household, community/village, sub-location, and district).

Indicator(s):

- **Number of CHWs, SHC members, and MOH personnel trained.**
- **Number of joint supervisory visits made between CICSS and MOH.**
- **Number of CHWs showing improved skills in CMCI when assessed.**

Cost and Responsibility Assumption: There are a number of costs associated with the project that cannot be recovered through traditional user fee or other cost recovery mechanisms. These include supervision costs, training costs and the costs of other supplies associated with the operations of the CHWs and SHCs (the patients' registers, accounting forms and books, etc.). Attempting to include these costs in the cost of drugs sold would result in prices which would be unaffordable to many in the project area communities and have a potentially damaging effect on utilization and project impact as a result. There are indications that the low prices charged for drugs by the CHWs are still too expensive for some. The project also continues to address the perception held by many community members that drugs (especially those from a "project") should be distributed free of charge. These same community members often spend more for drugs and treatments at alternatives sources of care (traditional healers, private pharmacies, etc). These issues, then, result in either un-served patients or debts, which are difficult to recover or clear. This situation, of course, poses a significant danger to the revolving funds viability in the long run. Increasing prices to recover a greater percentage of all project costs appears therefore to be undesirable and unfeasible.

The project must therefore find partners who will progressively assume these costs if activities are to be sustained beyond the termination of CICSS II funding in 2003. The creation of the joint CICSS/MOH Task Force at the district level in Siaya has created a forum and opportunity to explore the MOH's potential to

commit to assuming these costs of the project. The project will aggressively use this Task Force as an opportunity to continue to urge the MOH to progressively commit resources to activities in support of CICSS II goals and objectives.

The MOH is not the only partner that may be expected to assume costs as part of a CICSS II sustainability strategy. The project will encourage communities through the SHCs to assume costs associated with training, supervision and operation of their CHWs. This may take the form of providing lunch (or an allowance) for CHWs while they undergo refresher training for example. SHCs will be encouraged to generate resources locally (and possibly create a fund) that they will manage and use to progressively assume reasonable (and difficult to recover through drug or user fee mechanisms) recurrent costs of supporting the work of their CHWs and the operation of BI pharmacies. Many communities currently rent space for their pharmacy. This is an important and encouraging example of their ability to commit to the assumption of specific recurrent costs. These examples will be expanded upon and shared. Many of these same communities are currently looking for ways to generate the funds in order to build their own pharmacy building in order to eliminate this cost in the future.

The assumption of the cost of sustained support and supervision alone are not sufficient to guarantee the sustained impact of the community based structures and behaviors that have been promoted by the project.
Indicator(s):

- **MOH resources committed to joint program activities in the Siaya District.**
- **Value of community contributed resources (in-kind included) committed to support of program activities.**

Efficiency: In order to improve its chances of financial sustainability (to be achieved primarily through cost recovery and/or cost assumption) the project must also ensure that it has defined the least expensive set of inputs required to sustain the desired impact. The project must find the most cost-effective ways to deliver and support the important services delivered by CHWs. The project will use an operations research approach to reducing cost of support while sustaining impact.
Indicator(s):

- **Cost per beneficiary (total project cost/total beneficiary population).**
- **Cost per case treated (total project cost/number cases treated).**

Community Mobilization: Sustainable demands for project interventions will be created through a strategy of aggressive community mobilization. The CICSS I Project has done an impressive job of mobilizing communities in the 23 sub-locations that it has worked to date. Community leaders are supportive and appreciative of the project and are beginning to look for ways to locally solve problems identified. The project will continue to build and support this capacity as a means of insuring the social sustainability of the project interventions and therefore their impact.
Indicator(s):

- **Number of SHCs functioning (regular meetings, participation in supervision of CHWs etc.).**
- **Number of CHWs functioning (drug kit in tact, visiting and treating patients)**

Technical leveraging: Technical leveraging refers to the ability of the project to integrate its successful approaches to child health problems into the national health policy framework**.** Project strategies and approaches must become part of the health policy framework if they are to be consistently sustained by MOH partners. CARE must develop a strategy to improve and expand feedback of project lessons into the national policy dialogue. This will be accomplished through increased dialogue and sharing of technical information and results with the Directorate for PHC as well as the offices responsible for KEPI and IMCI implementation. Only through its inclusion into national MOH policy and program guidelines can the sustainability of the CICSS approach be insured beyond the tenure of the current decision makers at the district, regional and national level who currently support the project as a key part of the service delivery package in Siaya.

It should also be noted that beyond sustainability considerations, technical leveraging is important as a strategy to increase project impact beyond the geographical limits of the project district locations. By

including project results into the national policy framework, CARE will insure that the key successful elements of CICSS strategy will be replicated elsewhere and therefore expand its reach and impact.

Indicator(s):

- **Inclusion of CMCI and other key CICSS elements into national PHC and IMCI policy and guidelines.**

I. Training

Training is one of the major capacity building components of the CICSS project. In phase one of the project, various systems have been put in place, which have empowered communities to provide quality health services and saved lives. Based on the results of the final KPC, the project has to address the identified gaps in capacity building in order to achieve more successes in phase II of project implementation.

During CICSS I the project developed and tested a number of training manuals and materials for training CHWs and SHC members in the application of the CMCI diagnosis and treatment strategies. These training materials are included in Annex G.

Training will be aimed at sealing the gaps through the development of skills and knowledge of CARE, MOH and the community for sustainability of the program. The training will be in 3 categories depending on the type of knowledge and skills to be imparted. They are:

- **Initial training** which will be the training given to staff covering PHC/CBHC concepts and relevant child survival intervention and reproductive health issues.

- **Refresher training** which will bridge the gaps that have been identified during implementation by staff and community health workers and Village Health Committee.

- **On job training (continuous support)** which will be the continuous support to the staff and community to sustain the benefits and will be carried out through home visits, clinical assessments, updates on new developments, meetings and exchange visits.

Replacement training and developing skilled TOTs will enable increased levels of training to larger numbers. Refresher training will be based on periodic structured training and performance assessments. In-service training will be scheduled quarterly for CHWs. Routine clinical proficiency training will be conducted jointly with MOH on a rotation basis in the nearest health facility, and through clinical staff. Replacement CHW training and supervision of trained personnel will gradually be assumed by the MOH, communities, NGOs, assisted by a designated TOT cadre. Field staff will be trained in STI/HIV and the new FP methods. Routine clinical and proficiency assessments will be conducted through the in-service rotation of CHWs random observed facility-based testing.

The training pattern in CICSS II will be fully community based and cost-sharing mechanism will be worked out between CARE, the MOH and the community. This will occur through dialogue on issues of cost, risk and responsibility sharing during training for the purpose of promoting sustainable activities. They will also jointly make decisions on the identification of MOH participating staff, community TOTs whose capacity will be built to take care of community training needs and supervision accordingly.

Training of CHWs, SHCs and CBDs during the phase out

During the phase out process, MOH staff will assume the training responsibility. The community-based TOTs will continue to support weak and newly trained CHWs as they carry out their tasks in the community.

Table 6: STAFF TRAINING PLAN*

Training type	Target	Number of participants	No. of courses	Days duration

TOT & BI	MOH	22	1	14
CMCI	MOH, CARE	30, 8	1	10
FP (CBD)/STI/HIV	MOH, CARE	22 & 5	2	7 & 7
CMCI refresher	MOH, DMW, CD	22 & 2 & 2	2	5 & 5
CBC material use	MOH, CARE	30, 22	2	5
PLA	MOH, CARE	22 & 5	2	21 & 21
Cross visit to Uganda	MOH, CARE	5 & 5	1	7
Local cross visit	MOH, CARE	5 & 7	3	3
Phase over workshop	MOH, CARE	22 & 5	2	5
HIS	MOH, CARE, DMW	2, 22, 2	1	5

*: Indicators will include post training performance and number functioning after one year

Table 7: COMMUNITY TRAINING PLAN

	Type of Training	Target	Number of sessions	Number of participants	Duration	Task(s) to be Performed
1	PHC/CBHC/ BI concept	New CHW, VHC	1	292	10 days	Carry out preventive and promotional activities of the project Be able to conduct communication for behavior change among the target group Be change agents in their communities
2	CMCI	New CHW	1	292	18 days	Be able to assess, classify, treat and counsel the mother of a sick child.
3	Community HIS	CHW, VHC	1	292	3 days	Enable the CHWs to collect data and submit monthly reports to the SHC. Enable the VHCs to make use of data
4	Community Based TOT	CHW	1	185	21 days	Trainers of CHWs Provide support to CHWs on CBHC activities
5	FP &STI/HIV	CBD, CHW, TBA	1	560	7 days	Promote FP services in the community and refer to CBD and H/F Refer people who are infected with STI to the H/F for treatment
6	CMCI – refresher	CHWs	2	640	7 days	Update and enhance the skills of the CHWs in carrying out assessment classification treatment and counseling to mothers of sick children as part of performance standard
7	CBC material training	CHW, VHC	2	292	7 days	Develop the skills of CHWs in using CBC materials while carrying out preventive, promotional and control activities on project-targeted conditions within the community.
8	Cross visit	CHW, VHC, community leaders	1	160	1 day	Share experiences/lessons learned with other relevant communities with community pharmacies that have been operational for more than ten years.
9	FP STI/HIV refresher	CBD, CHW, TBA	1	292	3 days	Update the knowledge and skills of the CHWs in carrying out FP STI/HIV services to the community, as part of quality assurance
10	Financial Management	SHC	1	292	3 days	Develop the skills of SHCs in managing drugs and nets revolving fund Be able to budget, work out CHWs incentives, support immunization activities and ensure the restocking of the pharmacy

Support-a-Vision Plan

CICSS I laid the ground for supervision and monitoring which was mostly carried out by CARE. CICSS II will emphasize on establishing strong linkages with the MOH, community and other agencies that are operating in the area to provide a sustainable support-a-vision mechanism to VHCs, CHWs and existing CBDs. The next phase of the project will rely more on the MOH staff at the heath facilities, (ECN's and PHT's) to play a more active role in the supervision of CHWs and SHC activities. An agreement between the MOH and CARE will be drawn up where the supervisory structure will be outlined. Project/MOH support-a-vision to CHWs will be more focussed on quality assurance. This will emphasize support in ensuring correct assessment, classification, treatment and referral for sick children. VHCs/SHCs will have

the overall responsibility of support-a-vision with regard to "their" CHWs, especially on issues of preventive/promotive services and activities and on ensuring coverage of services to the target population.

In the first year, CARE's CBAs will work closely with MOH staff at the rural health facilities, while community-based TOTs will provide support-a-vision to the CHWs and SHCs, including on-the-job observation and training. Periodic review of CMCI tools, such as clinical register, will be done as well as exit interviews with mothers to assess quality of service delivered by CHWs.

In the second year, CARE will start the phase-out process. Support to the CHWs and SHCs will continue to be provided by the MOH staff, through nine rural health facilities. Indicators will include number of CHWs still performing after one year or more. The overall running of the community health activities and management of community pharmacies will be the responsibility of the SHCs. The phase-out process will end in year 3. In the 4th year, CARE will limit its support-a-vision to field operations but liase more with community leadership, SHCs, community based TOTs, other NGOs and MOH to promote sustainability and community ownership. Minimal technical support will be provided in areas specified by the community and the MOH.

A series of guidelines, job descriptions, and support-a-vision checklists will be developed to facilitate phase-out and sustain performance of CHWs. Proficiency testing procedures for CHWs and other key staff will be standardized, remedial action options to maintain skilled staff will be designed, and problem identification and solution capacity will be developed for all stakeholders.

J. Behavior Change Communication

The first phase of the project developed, with the assistance of Johns Hopkins University, a comprehensive IEC strategy (copy attached in Annex H). This strategy calls for CHWs and to a lesser extent SHC members to act as individual and community level communicators who pass on a limited number of key health messages. This strategy was developed after various assessments that showed that there were real gaps in the knowledge and health-seeking behavior of mothers and caretakers. This was also a finding of the final KPC survey, which showed minimum changes in the knowledge indicators. The main issues that were addressed in the development of the strategy took into account the following;

- There was **inadequate information** provided to the mothers and caretakers by CHWs during their interaction on child illness of medication provided.

- **CHWs were passive in their role** of promoting their major role diseases prevention and health promotion and mainly focused on curative care of sick children.

- This passive role as health educators was due to **lack of adequate knowledge** and skills on interpersonal communication and counseling.

The main objectives of the IEC strategy are to increase the capacity of mothers and other caretakers to practice culturally appropriate health seeking behavior when faced with a sick child and to increase capacity of mothers and other caretakers to practice appropriate preventive and promotional health care. The approach to be used is the dissemination of IEC materials to mothers/caretakers through the CHWs, VHCs and other community leaders. The key messages will focus on the household and individual level and on the community level. The messages will be targeted to mothers with children under five years (especially those under the age of two), parents, village elders, school children and the youth.

At the **household level**, the different messages for the different conditions will be as follows:

- **Malaria** – Pregnant women will be encouraged to take S/P twice in pregnancy, (in the fourth or fifth and seventh or eighth month), Treated mosquito net use to avoid being bitten by mosquitoes especially for pregnant women and children below 2 years. Mothers and caretakers will be encouraged to take their child to the CHW, or community pharmacy or the nearest health facility if fever begins.

- **Pneumonia** – Mothers and caretakers will be taught to recognize fast breathing in a child with cough or difficult breathing as a sign of pneumonia. They will be encouraged to immediately take the child with these signs to a CHW (within 12 to 24 hours).

- **Diarrhea** – Mothers and caretakers will be taught that diarrhea can cause loss of fluids and death. Giving the child ORS can prevent this or home based fluids (e.g. Uji, water, milk, and energy providing foods like potatoes, ugali and rice). Do not use drugs or herbs to treat diarrhea.

- **Vitamin A** – Mothers and caretakers will be taught of the value of vitamin A for increasing both their own and their growing child's immunity against infection. They will be encouraged to eat Vitamin A rich foods and to take Vitamin A capsules once within 8 weeks after delivery.

- **Immunization** – Mothers and caretakers will be encouraged to be role models by completing their child's immunizations before the first birthday for full protection. They will also be told about normal side-effects of immunization (mild fever and discomfort may be treated with Paracetamol).

- **Child Spacing –** The messages will target all women of reproductive age and will focus on the safety of family planning methods and the wide variety to choose from. They will be encouraged to go to the CBD, CHW or the nearest health facility for more information on family planning methods.

- **STI** – The messages will focus on immediate proper treatment from the nearest health facility for symptoms of lower abdominal pain, abnormal discharge and genital ulcer disease.

At the community level**, the messages will be as follows:**

- **Malaria** – Families will be encouraged to use treated mosquito nets to prevent malaria and to seek care from CHW or other available health provider for children showing signs of fever

- **Pneumonia** – Families will be taught that cough and fast breathing is a sign of pneumonia in children and they should be taken to the CHW within 12 hours of onset.

- **Diarrhea** – Families will be encouraged to drink clean boiled water and to cover the water and food to keep flies and dirt away. They will also be taught of the importance of washing hands after visiting the toilet and before preparing meals, of using latrines and giving the child ORS or home fluids as soon as diarrhoea begins.

- **Vitamin A** – Families will be taught the value of exclusive breastfeeding for the first 4 to 6 months of baby's life. They will also be encouraged to supply children with a variety of foods every day including those that are rich in Vitamin A

- **Immunization** – Community will be encouraged to promote immunization services in their sites and to ensure that the mothers are well mobilised. Expectant women will also be encouraged to receive one or more doses of tetanus toxoid during the antenatal period. Mothers will be taught of the value of completing the child's immunization within the first year

- **Child Spacing –** Families will be encouraged to use modern methods of family planning to space births and prevent unwanted pregnancies

- **HIV/AIDS/STI –** The community will be taught the value of abstinence, of being faithful, using a condom if unable to abstain and to visit the nearest health facility as soon as signs of STIs are detected and encourage the partner to go for treatment

At the household and individual level, these messages will be passed through interpersonal communication and counseling, demonstrations and take home leaflets, flip charts and posters. At the community level, the

messages will be passed through focus group counseling/discussions, existing local folk media – role plays, public campaigns and take home leaflets and posters and flip charts

CICSS I designed developed and pre-tested an impressive array of IEC materials. These will be reviewed (modified as/if necessary) and are to be printed and disseminated for use by CHWs and SHC members. CARE, MOH, CHWs and SHCs will be equipped with behavior change communication skills on IEC materials use and interpersonal communication and counseling. Behavior changes in the community will be monitored closely and adjustments to the IEC materials and strategy modified accordingly.

Table 8: TYPES OF TRAINING/CAPACITY BUILDING IN CICSS II

Intervention	**Objective**	**Activities**	**Verifiable Indicator**	**Measurable Indicator**	**Who**
CMCI	To increase capacity of CHWs to provide quality and expanded community services to prevent selected childhood illnesses and case management	Train CHWs to carry out standard case management of ARI (292) new Review ARI training manual/guides for CHWs Replacement of dropouts. (Train CHWs to carry out standard case management of ARI) Train CHWs to carry out case management on CDD and promotion of exclusive breastfeeding to all infants	Number of CHWs ARI manual renewed No. of CHWs trained	Mothers recognizing rapid breathing as a sign of pneumonia in child 0-24 months with cough or difficult breathing. Mothers seeking medical treatment for their children with rapid or fast breathing within 12-24 hours of recognition. Percentage of children <24 months with diarrhoea in the last 2 weeks. Who were given the same amount or more of breast milk Percentage of children <24 months with diarrhoea in the last 2 weeks. Who will be treated with ORT	TO/MOH
	Provide standard case management for CHWs MALARIA	Train CHWs to carry out standard case management of malaria (Replacement of drop outs and newly selected CHWs) Train CHWs to develop their skills in net dipping	No. of CHWs trained	Mothers and children <2 years sleeping under an impregnated net. Women correctly taking malaria prophylaxis during pregnancy Mothers seeking appropriate treatment within 12 hours for their child's fever from the CHWs	TO/MOH

Intervention	**Objective**	**Activities**	**Verifiable Indicator**	**Measurable Indicator**	**Who**
	ARI	Review the algorithm Refresh the CHWs on CMCI	No. of CHWs trained Training response	Proportion of CHWs who correctly count RR and correctly identify chest in-drawing in a child with cough or difficult breathing.	CARE/MOH
	CDD	Train CHWs on assessment, classification and treatment of diarrhea	No of trained CHW on diarrhea Case management	Proportion of CHWs who correctly assess, classify and treat diarrhoea	CARE/MOH
SUPERVISION	Equip the trainers with knowledge and skills on CMCI Equip the case management and MOH staff Train staff/MOH on supervision methods	Number of bi-annual assessment of CHWs and health workers	No. of Trained CARE/MOH Staff on CMCI	Percentage of CARE/MOH staff who correctly provide support-a-vision to CHWs in CMCI.	TO/MOH
PHC/CBHC CONCEPT	To promote the preventive and promotion health care in the project area Equip health workers with knowledge and skills to be able to be trainers	Train CHWs on the PHC/CBHC to include Vit. A promotion Immunization program STI/HIV/ AIDS Train new CARE staff/MOH staff on PHC/CBHC Train VHCs on PHC/CBHC Family planning advocacy	No. of CHWs /CBDs/TBAs and other existing community health providers trained No. of staff trained No. of VHCs trained	Percentage of infants <2 months exclusively breast feeding Coverage of children 12-23 months with DPT1 Coverage of children 12-23 months with DPT3 Coverage of children 12-23 months with measles immunization Women bearing a child who receives one dose of TT during the most recent pregnancy Population 15-49 years who report using family planning contraceptives	TO/MOH

Intervention	**Objective**	**Activities**	**Verifiable Indicator**	**Measurable Indicator**	**Who**
				Percentage of youth who report the use of condom during the most recent sexual intercourse with a sexual partner.	
Community Pharmacy	To equip VHCs with knowledge and skills on community pharmacy management To develop skills of the CHWs/VHC/CBDs on the IEC materials use	To train VHCs on financial management and inventory control Procurement of drugs Book keeping Pricing	No. of CHWs trained Training reports No of sub-locations managing their community pharmacy according to the laid down criteria	Percentage of VHCs who are able to manage their pharmacies effective Improved number of BIs effectively managed by VHCs	TO/HIS/MOH
IEC	To develop the capacity of CHWs/VHCs/CBDs/TBAs and other existing community health providers on the use of IEC materials.	Review the IEC training manual for CHWs Train on communication skills Print the developed IEC materials Translation of IEC training manual in local language Training of CHWs/VHCs on how to use the developed IEC materials	No. of community health providers who demonstrate proper use of IEC materials	Proportion of CHWs /VHCs/CBDs/TBAs and other existing health providers who are able to communicate effectively Proportion of mothers/communities who can interpret the messages effectively	TO/MOH/PM
Community HIS	Develop VHCs/CHWs capacity to manage community based health information for local decision making	Training the VHCs/CHWs on data collection tools, simple analysis and interpretation Develop training manual for HIS Train VHCs in understanding and utilizing the information and make decision at their level Train new CARE/MOH staff on data collection tools, simple analysis and interpretation Refresher training for CARE/MOH staff on HIS	No. VHCs/CHWs trained Training reports No. of CARE/MOH staff trained No. of CARE/MOH staff refreshed.	Proportion of sub-locations who are able to interpret and use data effectively Proportion of staff who demonstrate correct use of data collection tools and are able to give feedback to the community	M&E/MOH/TO

Intervention	**Objective**	**Activities**	**Verifiable Indicator**	**Measurable Indicator**	**Who**
HIS	To build capacity of MOH/CARE staff in data and information management for improved decision making	Train MOH/CARE staff in computer literacy	No. of staff trained	Proportion of MOH/CARE staff who are able to use data and give a feedback at all levels.	
NEEDS ASSESSMENT	Establish the gap between the actual staff performance and expected results (standard) Determine the actual status of health facilities and quality assurance	Review training needs assessment tool Carry out training needs assessment for the staff Liase with AMREF/BASICS to acquire the facility assessment tool Review the tool if it is applicable Adopt the tool if applicable Carry out the assessment for the health facilities	No. of CARE/MOH staff assessed. No. of health facilities assessed	Review of the gaps that hinder performance Proportion of MOH/CARE staff refreshed and meet the expected standard Proportion of health facilities that provide quality care.	TO/PM/MOH
CHILD SPACING	To create demand for contraceptive use among families	Assess the status of the existence of CBDs in the project areas Train CBDs in the project areas where there is need Train CBDs in the project area where there's need.	No. of CBDs trained	Proportion of modern contraceptive use among women who wish to delay pregnancy for 2 years or more	TO/MOH
COMMUNITY BASED TOT	To build the capacity of the community to take care of their own health needs	Identification of the community based TOT Develop with CARE/MOH and community on the criteria for selection of TOT Develop manual for CB TOTs Train the community TOT on the linkages between MOH/CARE and sustainability	No. of CB TOTs trained Criteria developed Training reports	Proportion of sub-locations who are able to take care of their own health needs	TO/MOH
LOCAL CROSS VISITS	Expose VHCs/CHWs/CBDs/TBAs to other successful community based programs within the project area or outside	Identification of sites with successful PHC/CBHC sites Make a trip to the successful PHC/CBHC sites	No. of cross visits made	Proportion of VHCs/CHWs/TBAs /CBDs staff exposed and able to implicate the activities	TO/FHC/MOH
STAFF CROSS VISITS	Expose MOH/CARE staff to other communities based programs.	Identification of areas with successful PHC/CBHC program	No. of cross visits made	Proportion of MOH/CARE staff exposed and able to	TO/PM

Intervention	**Objective**	**Activities**	**Verifiable Indicator**	**Measurable Indicator**	**Who**
		Develop guidelines to determine successful PHC/CBHC program Make a trip.		replicate the activities	
PHASE OVER	Develop a mechanism for continuity of the program interventions, benefits to the main target beneficiaries after the funding period	Link the communities with the MOH Develop criteria for phase out	No. of workshops, trainings and meetings held	Proportion of communities phased out and directly supervised by MOH/ VHCs	PM/MOH
SUPERVISION AND MONITORING	Build the capacity of CARE/MOH staff to provide support-a-vision in both preventive and curative activities of the project.	Training of CARE/MOH staff on support-a-vision skills Develop standard supervision guide for use by CARE/MOH staff Train CARE/MOH staff on quality assurance tools for CMCI	No. of CARE/MOH staff who are trained on support-a-vision skills	Proportion of staff who are provide quality supervision	TO/MOH

SECTION 2: Program Management

A. Workplan

The table below outlines the general workplan for the first two years of project implementation.

Community Initiatives for Child Survival in Siaya II
Detailed Work Plan (Years One and Two)

Activities	Year One												Year Two											
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
Assessment of quality of CHW services and clinical skills		X	X											X	X									
DIP preparation				X	X	X																		
Health facilities assessment								X	X															
Development of MOU with DHMT					X	X	X																	
Training of CICSS and MOH staff in data analysis						X																		
Supervision of CHWs, SHCs and BI pharmacies	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Development of community based elements of "support-a-vision"						X	X	X	X	X	X	X												
Capacity building of communities to implement support-a-vision									X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Refresher training for CHWs									X	X	X										X	X	X	
Coordination and team building with DHMT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Community Training of trainers (TOT) curriculum development							X	X																
Community TOT training										X	X													
Training of CBDs													X	X	X									
Training of SHCs in BI pharmacy financial management								X	X	X														
Assessment of options for motivation of CHWs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Development of MOH based elements of "support-a-vision"						X	X	X	X	X	X	X	X	X	X	X	X	X						
Capacity building of MOH to implement support-a-vision										X	X	X							X	X	X	X	X	X
Phase out of old sublocations													X	X	X	X	X	X						
Mobilization of new communities																			X	X	X	X	X	X
Selection and training of CHWs and SHCs in new communities						X	X	X	X													X	X	X
Development/modification of IEC materials for use by CHWs and SHCs					X	X	X	X	X	X	X	X	X	X	X									
Training of project staff, MOH and CHWs in IEC and communication skills										X	X	X	X	X	X	X	X	X						
Mid-term evaluation																						X	X	X
Annual CARE Child Survival Project(s) Workshop								X												X				

Activities	Year One												Year Two											
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
Headquarters backstop and technical assistance visits				X				X			X					X						X		

Community Initiatives for Child Survival in Siaya II
General Work Plan

	Year 1				Year 2				Year 3				Year 4			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1.Personnel in Position																
a. Key project staff in place	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.Baseline KPC Survey																
Carried out together with final KPC in CICSS I in previous year																
Feedback to Community	X	X	X													
3. Final KPC Survey															X	
4.Health Information system																
a. Refinement of HIS		X	X													
c. Implementation				X	X	X	X	X	X	X	X	X	X	X	X	X
d.Feedback to Community & GOK				X	X	X	X	X	X	X	X	X	X	X	X	X
5.Training																
b.Training of Trainers & CMCI			X	X												
c. Training Sessions – CHW\VHC\TOT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
d. Evaluation and upgrade of CHW skills	X			X			X			X			X			X
6. Procurement																
a. Supplies																
- Pharmaceutical			X				X				X					
- Other	X		X		X		X		X		X		X		X	
7. Expansion to new sublocations		X				X	X	X			X	X	X			
8. Phase out of old sublocations					X		X	X			X	X		X	X	X
8.Technical Assistance																
a. Headquarters – Technical backstop visits		X	X		X		X		X		X		X		X	
b. Consultants			X	X		X			X				X			
9. Progress Reports																
a. Annual Reports				X				X				X				X
b. Mid-term Evaluation										X						
c. Final Evaluation														X		

B. Human Resources

CARE/Atlanta Headquarters will manage, support and backstop the CICSS II project through its Health Unit (HU). The Health Unit is one of five headquarters technical units which provide direct assistance to country office programs and projects. Administrative and management backstopping is provided through the East Africa Regional Management Unit (EARMUs), and Finance unit at headquarters.

Key HQ Personnel: The Health Unit has three children's health professionals based in Atlanta, offering extensive experience in primary health care management and child survival programming. James C. Setzer, MPH, has been designated as the primary HU backstop and technical support person for the CICSS II project (Setzer's resume is attached in Annex E).

Table 9: Key Headquarters Technical Personnel

Individual	Title	Areas of Expertise
Judiann McNulty, DrPH	Deputy Director	Nutrition, breastfeeding promotion, micronutrients, maternal health, diarrhea, sustainability, supervision, behavior change, IEC, quality assurance, monitoring and evaluation, community participation and empowerment
James C. Setzer, MPH	Technical Advisor	Health services planning, health finance, health and management information systems (HIS), data use for improved planning and supervision, malaria, sustainability issues, ARI, community development
Sanjay Sinho, MD	Technical Advisor	IMCI, training, neonatal survival, management, community participation, cost recovery, partnerships

There is a full-time program associate who is permanently at headquarters to provide financial and administrative support and maintain active communication with the field and donors. The HU Director and administrative assistant also provide support to children's health programs. There are five other professionals in the HU with expertise in maternal health, family planning, and HIV/AIDS who provide support to Child Survival projects, as needed.

The purpose of backstopping is to assure quality programming and to build CARE Kenya country office and project staff capacity. Backstopping also serves to share lessons learned between countries, and spread innovative and successful strategies. The technical advisor (Setzer) will assist the project staff in planning an orientation workshop, plan and execute the KPC, participate on-site in the development of the DIP, the mid-term and final evaluations. The projected has budgeted for the principal technical advisor to visit the project at least twice each year for an average of two weeks each visit over the life of the project. If this level of backstopping and support is deemed insufficient CARE will seek to adjust the budget and/or seek additional resources to ensure adequate levels of backstopping.

The success of the CICSS II capacity building strategy (and ultimately the impact and sustainability of the project) requires strong partnerships with both communities in the project area and the MOH. The availability and integration of human resources from these important partners will be essential. The structure of the partnership between CICSS and the MOH is depicted in the organizational chart below. The project strategy calls for MOH structures to progressively assume responsibility for the tasks and activities (supervision, training, support of community based structures: CHWs, SHCs and BI pharmacies) currently carried out by CICSS structures at the same level.

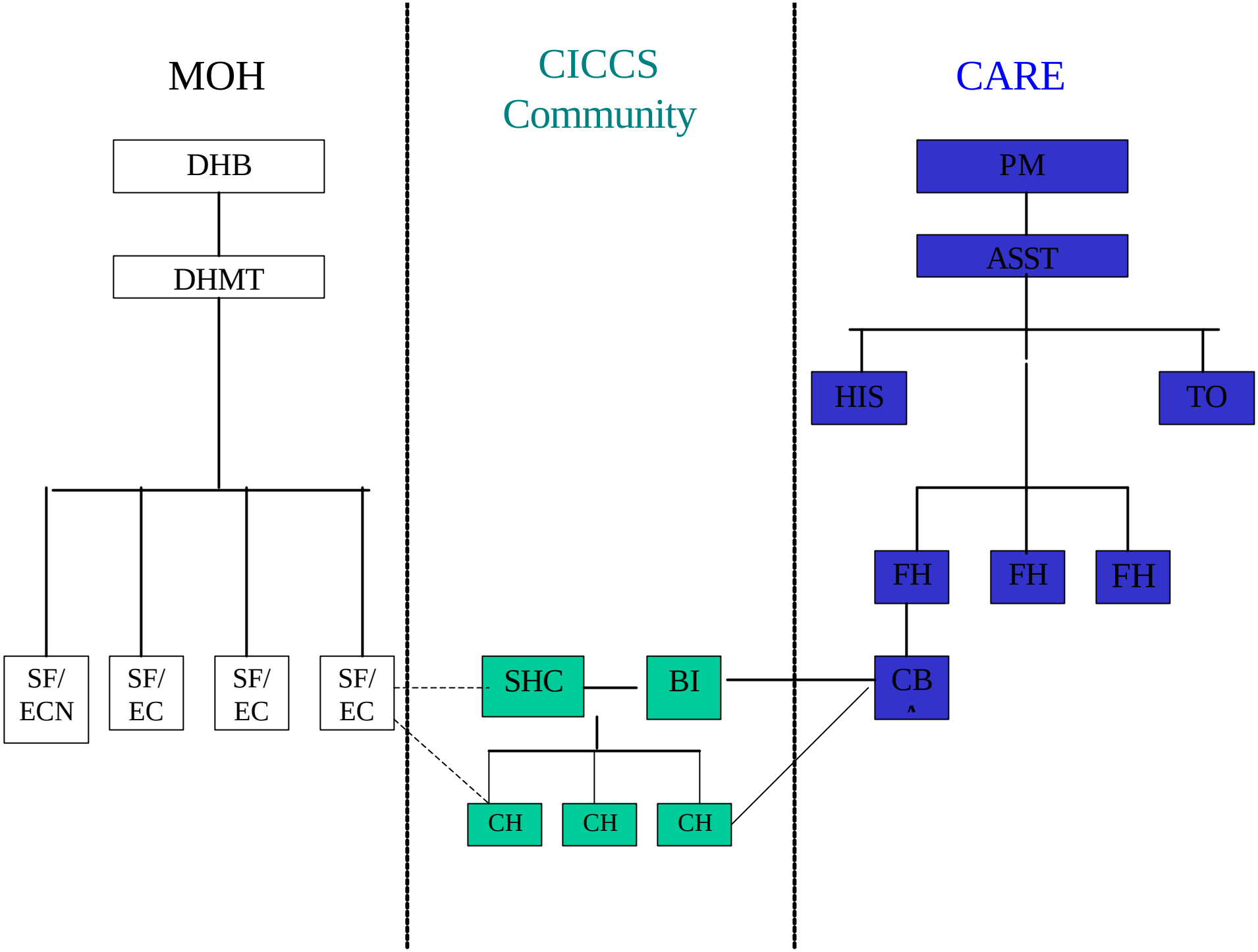
MOH
CICCS
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Table 9: CICSS II Human Resources

Position	**Type of position (S for paid staff, V for volunteer)**	**# of persons with this position**	**# of person months required**	***Supervisor***	**Qualifications (training and experience)**	Duties
Child Health Advisor (CARE/Atlanta)	S	3	12	Dir/Health and Population Unit	Child Survival Program management and implementation	Coordination, oversight and technical backstopping
Project Manager	S	1	48	ACD	MD, clinical skills, community experience	Project vision and management
Assistant Project Manager	S	1 initially, phase out to 0		PM	MPH or community nurse	Guide support-a-vision process, PM's deputy
Monitoring & Evaluation Officer	S	1	48	PM	MIS training	Manage project HIS
Communication & Training Officer	S	1	48	PM	Community Nurse	Conduct TNAs, plan and co-ordinate training
Field Health Coordinators	S	4 initially, phase-out to 2	144	APM	"	Support CBA field activities
Community Based Advisors	S	20 initially, phase -out to 9	708	FHS	"	Support CHW and SHC field activities
Community Health Worker (@16 per each 40 sublocations)	V	640	V	CBA, SHC	Literate	Prevention and treatment of selected childhood illness
Sublocational Health committee @12 per each 40 sublocations	V	480	V	CBA	Respected person	Support to CBAs
Support staff	S	4	192	PM	Variable	Support office and field activities
DHMT	S (GOK)	1	48	DHB	Clinical skills, program management experience	Coordination and supervision of MOH inputs
ECN	S(GOK)	14	672	DHMT	Clinical skills, public health program experience	1st level referral, training, support, supervision of CHWs, SHCs and BI pharmacies
PHT	S(GOK)	10	480	DHMT	Public health program experience	Training, support and supervision of CHWs, SHCs and BI pharmacies

C. Financial Management

Both CARE Headquarters in Atlanta and CARE/Kenya have well developed and capable financial management and accounting systems already in place which will be employed by the CICSS II Project.

The headquarters portion of the budget (15%) is managed by the Child Health Team with the HU at CARE headquarters in Atlanta. All other funds are transferred to CARE/Kenya. An account is established in Nairobi and at the CARE Regional office in Kisumu. All project accounting is handled through the regional office and its accounting staff. Reports are generated monthly by Kisumu and quarterly by the Nairobi office.

Atlanta receives these reports and is responsible for the generation of quarterly pipeline analysis reports for use by the project management team in Siaya.

All funds dispersed by the project to partners are subject to the accounting and documentation requirements established by CARE/Kenya.

D. Monitoring and Evaluation (M&E)

A project's success rests upon the ability of its monitoring and evaluation system(s) to provide relevant, timely and accurate information to project managers and partners for improved decision making. The CICSS project is no different and will build upon and refine the monitoring and evaluation systems developed under CICSS I. Those systems, like all aspects of the project, look at each of the levels of project action and define the data needs and information requirements for each. The basic elements of the CICSS M&E system, by level (household, community, district) are embedded in the log-frame analysis presented above.

The project has defined the key elements of the M&E system by specific intervention as well. These elements are summarized in the attached Annex I: "Community Initiatives in Child Survival in Siaya: Monitoring and Evaluation System Plan". This plan gives a detailed analysis of all data collection and analysis activities to be undertaken by the project. It should be noted that most elements of this plan are already functioning. A major focus of activities under CICSS II will be to review, refine and ultimately integrate the project M&E system into the DHMT M&E system. Full integration will ensure the sustainability of the M&E system and therefore the management, monitoring, supervision and evaluation activities needed to sustain CICSS activities and impact. It should be noted that the plan mixes routine (i.e. weekly, monthly) M&E activities with far less frequent and periodic activities such as special studies, KPC surveys and assessments.

While the presentation of the routine M&E plan looks extensive and perhaps overly detailed, it allows the project to adequately track project inputs and results. It functions at a very simple level collecting data from CHWs and tabulating and presenting it on chalk boards at the sublocation level. Project personnel collect data at this level. It is computerized and analyzed by project personnel at the project office.

In CICSS II, the SHCs will assume the overall responsibility of supervising data collection by the CHWs to ensure total coverage of the targeted beneficiaries. They will be trained in the supervision of data collection, the compilation from CHWs records, analysis, use and feedback to the community. SHCs will be trained specifically on the HIS tools that the CHWs use for data collection so as to give them the skills needed to extract relevant data for their own use at community level. CHWs will be trained in the overall records keeping for both clinical and preventive/promotive activities that they carry out.

Monitoring and Evaluation System's Objectives

- To assess project results so as to find out if the project objectives are being met and are resulting in desired changes
- To improve project management and planning by identifying lessons of general applicability, how different intervention strategies to implementation of activities affect outputs, outcomes and impact and to learn what works and what does not work for better programming.

Project monitoring will be carried out for assessing the effectiveness and quality of implementation. The efficiency of the resources put into the project relative to the outputs and outcomes will also be assessed through monitoring. Data will be collected on the project Inputs, Outputs, Processes and Outcomes.

- **Input Level**: Data will be collected on the resources that the project uses for carrying out the planned activities. This will also include contributions from the community members for supporting the project activities.

- **Output Level**: Data will be collected on the concrete and tangible products resulting from project activities. This will include the number of CHWs, VHCs, SHCs, MOH staff and other collaborators trained and documents developed.

- **Processes Level:** Methods, strategies and different intervention approaches used will describe by project staff in monthly narrative reports. Lessons learnt and way forward will be described in detail in monthly narrative reports from project staff.

- **Outcomes Level:** Data will be collected to describe changes, which occur within the community that can be attributed to the project's processes and outputs. Quarterly changes in the utilization of Chemo-prophylaxis by expectant mothers, Vitamin A by post natal mothers, TT coverage will be tracked through the use Maternal and child health register. Data will be collected on the number of children being treated by CHWs and deaths among the under 5s will be collected on a monthly basis. The project will extract deaths being reported to District Civil Registration Office on both the Intervention and Control Sites for comparison. The Project's M&E Officer will analyze the data collected through Case Management Checklist on the Clinical Assessment of the CHWs quarterly. This will be used to identify clinical areas where the CHWs need support hence their inclusion in the Refresher training curriculum. Once every year, a sample of the practicing CHWs will be assessed at the District Hospital where their skills will be compared with identified Gold Standards in Case Management. The results of this annual evaluation exercise will be used to identify overall training needs of the CHWs in clinical management.

Active Monitoring by all project staff will ensure continuos feedback on implementation and will help in identifying actual or potential successes and problems as early as possible to facilitate timely adjustments to project implementation operations

Formal Project Evaluations will be done at the Mid-Term and at the end of project life cycle.

Description of M&E Activities

⌦ **Monthly Clinical Skills Assessment at Rural Health Facilities:** Project CHWs will be taken to a rural health facility in the first and third months within a quarter for clinical assessment. Second month in the quarter will be used as a time when the CHWs is meant to visit health facility for health education and practicing on the areas identified during the first month's assessment contact. Performance for first and third months will be compared to determine the effect of feedback sessions between the CBAs or Rural Health Facility staff and the CHWs**.**

⌦ **Monthly Meetings:** There will be monthly meetings facilitated by the Community Based Advisors and Sub-location Health Committee Chairpersons. During such meetings discussions will be focussed on the achievements of the month, problems encountered and how they were/could be solved and the strategies for improving better coverage and quality of care. In addition, monthly meetings will be a forum for exploring the causes of under deaths and how they could be avoided.

⌦ **Quarterly Planning Meetings:** The project will conducting planning meetings with the communities at Sub-location levels chaired by the Field Health Coordinator and Sub-location Health Committee Chairpersons with the involvement of representatives from the MOH, other agencies working in the project area and community leaders. The main agenda will be to review the previous quarter's activities, achievements and constraints and plan for the way forward. Community Quarterly Plans will draw activities from the project's Annual Master Plan. Issues arising from these meetings shall all be documented by the Field Health Coordinators to be shared with other project staff during monthly and quarterly meetings.

⌦ **Semi-annual location leaders meeting:** Meetings will be conducted on half-yearly basis for sharing project status in terms of achievement, threats to success with all community leaders at location level. They will be given an opportunity to extensively explore on both successes and problems and to get their involvement in handling pertinent issues that would go towards improving both quality of care and

coverage. Initially the organization of these meetings will be the primary responsibility of project staff but eventually the leaders will take a more proactive role as part of the phase out process.

⌦ **Monthly Progress Reports:** This will take the form of narrative reports on all planned activities for that specific month detailing the achievement of process and output indicators. The report will be written by all project staff to their respective supervisors. The monthly reports will basically include a descriptive analysis of the extent to which planned activities for that month have been implemented, successes and problems encountered and possible solutions. It will be the primary responsibility of all supervisors to ensure that all reports are submitted on time and discussed during Senior Management Team and staff meetings.

⌦ **Quarterly Progress Reports:** Project Staff at all levels will give a summary of all planned activities ranging from trainings, clinical assessments, supervisory visits, community meetings held, CHW/VHCs performance and their status in terms of implementation, successes, problems and lessons learnt. More specifically, the M&E officer will give report on Case Management Clinical Assessments Results at Rural Health Facilities, Service Statistics on Cases seen and how well Preventive strategies are working. Training Officer will give a report on the status of community trainings and how well the Cost sharing strategy is working in addition to other planned training sessions for that quarter. Assistant Project Manager will give report on the Supervisory System at the community level and on the successes, problems and lessons learnt. Field Health Coordinators will report from various Sub-location Committees on the status of planned activities for the ending quarter. These quarterly reports will form the basis for discussion that will guide planning sessions for the next quarter. While co-ordination of quarterly planning sessions at the community level with the community members will be the responsibility of the M&E Officer, the Project Manager must support this arrangement to ensure its working.
Based on the utilization status of the services being promoted, the project will organize Key Informant Interviews and Focus Group Discussions for providing solutions to identified problems.

⌦ **Annual Clinical Assessments:** This activity will be done each November (1999, 2000, 2001, and 2002). It involves bringing CHWs to District Hospital for an evaluation of their clinical skills by the projects appointed Gold Standards. The planning of this activity primarily lies on the Training and the M&E Officers with support from Field Health Coordinators. The assessment will collect data on the Clinical Assessment, Classification and Treatment as done by individual CHWs. The analysis will involve the comparison of performance of the CHWs Year 1,2 and 3 based on the refresher trainings conducted in the previous years. A team from MOH will also be involved in this exercise.

⌦ **Annual Extraction of Under 5 Deaths reported through District Civil Registration System:** This activity will be done in May of every year. The reported deaths will be extracted from all the sub-locations within the project's intervention areas for studying the trend. The same will be done for 20 sub-locations in Ukwala Division, which act as the control sites. The comparison of deaths in the two sites will be used in assessing the sensitivity of both the Civil Registration and Project's HIS in capturing under 5 deaths and two, for determining the trend in deaths in the two areas hence the impact of the project's interventions.

⌦ **Annual Mini Surveys:** Annually, the project will conduct mini surveys to help in monitoring the progress of Knowledge and Practice indicators. This activity should form the basis upon which preventive and increased service utilization strategies will be revisited for redefining them to foster better performance.

⌦ **Baseline KPC Survey:** The project undertook a baseline KPC Survey for the new 17 sub-locations in June/July 1999. The questionnaire used included 60 questions that covered all areas of project interventions. The baseline data collected provide useful information for establishing trend analysis by comparing these results with Final KPC Survey results.

⌦ **Mid-Term and Final Evaluation:** Both the Mid-Term and Final Evaluation will be carried out using guidelines set out by BHR/PVC. The results from Mid-term evaluation will be used to redesign systems and strategies for better implementation of activities to achieve a better impact.

E. Budget

There are no changes or modifications requested between the budget represented in the original grant proposal and the DIP.

F. Technical Assistance Plan

The project will benefit from the availability of important technical assistance resources from a variety of sources. In some cases the project may need to seek additional funding to support specific technical assistance activities and inputs.

The project will also seek to utilize student researchers/interns from the Rollins School of Public Health, Emory University and University of Alabama at Birmingham School of Public Health where appropriate. Other universities and schools of public health may become involved as interest and resources permit. Students have made key, low cost technical contributions to the project in the past. Through these students, the faculty of these two institutions will become involved in and contribute to the project as well. The exact scopes of work to be undertaken by such student interns will be developed based upon the CICSS II workplan and student availability and interests/skills.

PVO Headquarters:

Significant CARE/Atlanta Health Unit (HU) technical resources have been dedicated to support and backstopping the CICSS project. The CARE Health Unit is one of five technical units, which provide direct assistance to country office programs. Administrative and management backstopping is provided through the East Africa Regional Management Unit (EARMUs), and Finance Unit at headquarters.

- **Key HQ Personnel:** The Health Unit has three children's health professionals based in Atlanta, offering extensive experience in primary health care management and child survival programming (see Table 11 , below). Child Health Advisor, James C. Setzer, MPH, has been designated as the principal technical backstop and support person within the HU. The CICSS II headquarters budget allows for at least two annual technical backstop visits of approximately two weeks duration each to the project by HU staff over the life of the project. The exact timing and scope of work to be undertaken during each of these visits will be developed jointly between project staff in Kenya and HU backstop personnel in Atlanta. It is anticipated that HU backstop personnel will participate as team members in both the mid-term and final evaluations of the CICSS II Project.

Table 11: Care Headquarters Health Unit Technical Personnel

Individual	Title	Areas of Expertise
Judiann McNulty, DrPH	Deputy Director	Nutrition, breastfeeding promotion, micronutrients, maternal health, diarrhea, sustainability, supervision, behavior change, IEC, quality assurance, monitoring and evaluation, community participation and empowerment
James C. Setzer, MPH	Technical Advisor	Health services planning, health finance, health and management information systems (HIS), data use for improved planning and supervision, malaria, sustainability issues, ARI, community development
Sanjay Sinho, MD	Technical Advisor	IMCI, training, neonatal survival, management, community participation, cost recovery, partnerships

In addition, there is a full-time program associate who is permanently at headquarters to provide financial and administrative support and maintain active communication with the field and donors. There are five other professionals on the Health and Population Unit with expertise in maternal health, family planning, and HIV/AIDS who provide support to Child Survival projects, as needed.

CARE currently has sub-agreements for participation in the USAID-funded projects Linkages, PVO Networks, and the Micronutrient Support Activity. CARE's involvement in these projects will give CICSS II access to the latest information and policies and technical innovations. CARE will seek to develop these linkages (and others such as the BASICS project) in order to increase CICSS II access to important technical assistance resources. Through a joint health capacity-building project with the Centers for Disease Control (CDC), CARE has access to technical expertise from many CDC divisions (see below). CARE is also a member of CORE working groups, of the Program Against Micronutrient Malnutrition (PAMM) and has formal working agreements with the Rollins School of Public Health at Emory University and Tulane University School of Public Health and Tropical Medicine.

Centers for Disease Control and Prevention:
Through the Care/CDC Health Initiative the CICSS II project will access technical resources from the CDC in four areas:

- **Evaluation of CHW Clinical Skills**: Technical resources from CDC have been instrumental in assisting the project to monitor the quality of technical skills of the trained CHWs. Two assessments have been performed (last completed in November 1999) to assist the project to develop its plans and needs for the ongoing support of CHWs requirements necessary to sustain their clinical skills and effectiveness. The project will ask CDC to, through these experiences, develop a standard tool for use by the project (and others) to assess skills and develop plans and activities to upgrade and sustain clinical skills at a level capable of sustaining impact on child mortality.
- **Review and revision of CICSS/MOH health and management information systems**: The CDC will continue to assist the project to further refine its MIS and HIS components. Special emphasis will be placed upon making data more available and useful at the SHC level. This will lead to improved management of the BI pharmacies as well as improved performance of CHWs. In addition, efforts will be made to fully integrate project HIS/MIS activities with those of the routine HIS/MIS operated by the DHMT and the MOH. This integration will be a key element driving MOH participation in insuring the sustainability of project activities and their impact.
- **Training in applied epidemiology**: The CDC will provide technical resources to carry out training for project and DHMT members in basic data analysis and applied Epidemiology.
- **Impact monitoring of child mortality**: The CDC will continue to provide technical assistance to assist the project to monitor and document changes in infant and child mortality in the project area(s). The project has shown significant reductions to date. CDC experts will periodically assist the project to reassess trends in infant and child mortality. This will be an important element of the project evaluation strategy and activities.

Other:
Other areas already identified requiring additional technical assistance include:

- **Mid-term Evaluation**: The project will hire an external expert to lead the project's mid-term evaluation effort (late spring-early summer 2001). The consultant will be a senior public health expert with experience in child survival program development, IMCI and community development. It is anticipated that the Child health advisor/technical backstop for CARE/Atlanta will participate in the mid-term evaluation as well.
- **Final Evaluation**: The project will hire an external expert to lead the project's final evaluation exercise (anticipated to take place summer 2003). The consultant will be a senior public health expert with experience in child survival program development, IMCI and community development. It is anticipated that the Child health advisor/technical backstop for CARE/Atlanta will participate in the final evaluation as well.
- **Training of Trainers**: The project will seek technical to assist in the development of training programs to create a cadre of trainers who will be responsible for training and refresher training of CHWs and SHCs.

In addition, several areas that may benefit from additional technical inputs and assistance include:

- **MOH Health Facility Assessment**: The project plans to conduct a facilities assessment of all nine of the MOH static health facilities in the project region. The assessment will allow for the development of

a capacity building plan for MOH facilities to ensure that they may fulfill their role as referral facilities and sites for the delivery of key child survival services (immunizations, child spacing, STI treatment, etc.) that cannot be delivered through the CICSS initiated community structures. Standard methodologies for this type of assessment have been developed by AMREF and BASICS. The project may employ an consultant with experience in these health facilities assessments to adapt these methodologies, manage the assessments and assist in using the results to write a detailed capacity building plan for MOH static facilities and their personnel.

- **Development of Community-based and MOH-based supervisory mechanisms (Support-a-Vision)**: The key element to project success and its sustainability will be the ability of the project to clearly define feasible and affordable mechanisms to build partner (community and MOH) capacity to assume responsibility for management and supervision of the key health services and behaviors promoted by the project. This is the essence of support-a-vision. In addition to defining the modalities of support-a-vision itself in terms which can/will be embraced by partners a capacity building plan must also be developed that will give the partners the requisite skills to carry it out and empower them to do so. The project may wish to access additional technical resources in this effort. A senior public health expert with experience in community-based management, supervision, development and capacity building may be sought. Additional technical assistance with experience in rural African sociology (especially in the areas of community structure, organization and development) may be sought.
- **Potential mechanisms for and contributions of income generating activities to community level sustainability**: Communities quickly ask for assistance in launching non-health related income generating activities (IGAs) in order to provide financial remuneration/motivation for volunteer CHWs or to provide subsidies for the operation of SHCs and BI pharmacies. Experience with IGAs associated with child survival projects in the past indicates that they are complex to initiate and manage and require considerable technical inputs if they are to produce the intended benefits to the health project. Therefore the project may wish to seek technical advice as to the feasibility of including IGA initiation and support into the capacity building package for SHCs. The project would seek a consultant (perhaps from within another unit at CARE) with extensive experience in the design and management of IGAs at the rural, community level.

SECTION 3: Detailed Plans by Intervention

It is important to note that the CICSS approach seeks to integrate treatments for common childhood illnesses at the community level through training and support of CHWs. CSCII has developed clinical algorithms for the treatment of diarrhea, malaria and ARI in a package it calls CMCI.. CMCI also incorporates Vitamin A as part of the treatment guidelines.

The CMCI guidelines are attached (Annex J). The individual components of CMCI are discussed separately below as required by the USAID BHR/PVC DIP Guidelines.

Immunization (10% of project effort)

Summary of CICSS II Immunization Activities:

- Training of CHWs to create demand for immunization services through individual counseling/education and participation in community mobilization efforts;
- Training of SHCs in methods to improve community mobilization and demand for immunization services;
- Assistance to SHCs to develop methods to share costs for immunization outreach activities with MOH facilities to improve access to services; and
- Assessment of MOH personnel and material resources needs to improve immunization service delivery and coverage.
- Existing TBAs will be trained to motivate mothers to take their children for immunization immediately after birth.

The CICSS II project will continue to reinforce efforts at the community and household levels to build demand for immunization services to be delivered by the MOH static health facilities in the project area.

CHWs and SHCs will be trained and motivated to act as household and community level educators and mobilizers to ensure that mothers know the importance of immunization for their children and when and where services are available. The project will include these messages in CHW and SHC training curricula as well as develop appropriate IEC materials to be used by CHWs and SHCs in communicating immunization messages. The program will attempt to mobilize communities through SHCs for immunization and promotion of improved health-seeking behavior. It will also support MOH facilities in a practical way after facility assessments have been conducted by coordinating the use of IEC and creating the demand for services between communities and facilities.

The project will also encourage SHCs to identify methods to share the cost of moving immunization services out of MOH static health facilities and closer to the community. Sharing of the transportation costs for MOH immunization personnel to visit communities to deliver services would be an important indicator of SHC capacity and willingness to assume responsibility and cost of improving services at their level.

The project will assist the MOH in promoting polio eradication efforts through the social mobilization of communities to participate in National Immunization Days (NID) and routine immunization services. Kenya Expanded Programme for Imminization (KEPI) plans currently indicate that 2000 will be the last year for NIDs.

Support to the direct delivery of immunization services will be limited to assisting the DHMT to carry out a comprehensive assessment of all static health facilities in the project area (9 total). The assessment will assist the DHMT to identify human and material resource constraints to the delivery of immunization services according to national KEPI guidelines. The project has received limited funding from the Medtronics Foundation which will be used to purchase equipment and other supplies necessary to improve immunization coverage (no vaccine will be purchased using these or any other project funding). The planned MOH static facilities assessment will give the DHMT the information necessary to approach appropriate donors and supporters with concrete requests to improve KEPI services.

No district level disease reporting or surveillance data are currently available for Siaya, although anecdotal accounts indicate periodic outbreaks of cholera (not included in KEPI immunization schedules) and measles. While no reliable, recent survey based (as opposed to estimates derived from activity reports) district level estimates of vaccine coverage are available, the DHMT indicates that coverage levels for Siaya District are, in fact, below the relatively high levels of national coverage as reported in the 1998 DHS survey. Among children 12-23 months, 79% have received measles vaccination and 65% are fully vaccinated according to national EPI guidelines and calendar (1998 DHS report). Eighty percent of mothers received tetanus toxoid vaccination during their pregnancy (1998 DHS report). The Siaya District Medical Officer indicates that coverage has fallen below 50% and the District annual report indicates 11,243 doses of measles antigen delivered, for example, against a target of 38,100 children (29.5%) (MOH, Siaya District Annual Report, 1998). It is anticipated that, as efforts are made to harmonize the CICSS H/MIS with that of the MOH, the coverage and accuracy of MOH disease and immunization service delivery data will improve.

The CICSS I KPC survey carried out in project locations only in the three divisions estimated a coverage rate of 59% of children aged 12-23 with measles antigen.

The KEPI program and immunization schedules are in accordance with relevant WHO/UNICEF guidelines for national immunization programs. A copy of the current immunization calendar is attached (Annex K).

Immunization services in Siaya District are delivered largely through the MOH static health facilities in the area. Lack of personnel and resources are generally cited as the reasons that outreach services to communities are limited. Major (and frequent) constraints cited by DHMT and project staff include:

- Lack of fuel and/or transport to distribute vaccines to static facilities;
- Inadequate or non-operational cold chain equipment; and
- Lack of gas to operate cold chain equipment.

The CICSS project has developed a community support mechanism for immunization. This includes communities working with facility staff to arrange for vaccination team transportation and other important support (i.e. lunch either in kind or an allowance). This has been successful in nine of the 22 sublocations. The major constraint(s) to the expansion of this initiative is the unavailability of health facility staff, loss or breakage of equipment and not being replenished in time. The project plans to work closely with the MOH to strengthen this service.

KEPI uses individual vaccination and health history cards to keep track of individual vaccination status. Copies of these cards are attached (Annex L). The cards are supposedly retained by the individuals (or mothers and caretakers) and replaced by the facility in the case of loss. KEPI staff attempt to document immunization history by interviewing the mother of caretaker in the case of card loss and replacement. The DHMT reports that the availability of these individual vaccination history cards is not a constraint to program operations.

The project will continue to emphasize the importance of Vitamin A supplementation for children 6-59 months and lactating women as a complement to immunization services. The project has also pioneered the inclusion of Vitamin A as part of the curative services delivered by CHWs to children with ARI.

Vitamin A (10% of project effort)

Summary of CICSS II Vitamin A Activities:

- Train CHWs to include Vitamin A as part of treatment of childhood illness as defined in CMCI protocols;
- Train CHWs to create demand for Vitamin A supplementation of women and children according to guidelines;
- Promote the production and consumption of locally available Vitamin A rich foods through personal counseling/education and social mobilization;
- Assist SHCs to insure the availability of Vitamin A capsules through community level BI pharmacies;
- Train SHCs to create demand for Vitamin A supplementation according to guidelines and consumption of Vitamin A rich foods through social communication and mobilization efforts; and
- Build the capacity of the DHMT and its service providers in the area in Vitamin A use (supplementation and therapeutic) and support sustainable Vitamin A capsule availability and distribution (in therapy and through KEPI activities). Emphasis will be made to increase availability of 100,000 IU Vitamin A capsules (VACs). CHWs will be trained to distribute VACs to preschool children once every three months. Monitoring of VAC doses will be done by the CHW through a register.

The WHO classifies Kenya as one of the countries in the world with Vitamin A deficiency (VAD) levels of public health magnitude.(FFQ survey 1999). The relationship between VAD and child morbidity and mortality have been well documented and VAD prevalence levels in Siaya almost certainly contribute to the high levels of morbidity and mortality in the district. In addition to low levels of Vitamin A intake from their diet, children in the project area also exhibit high rates of incidence of childhood illnesses which have been shown to deplete already low body Vitamin A reserves further predisposing them further to VAD and consequent morbidity and mortality. CICSS I KPC survey results document low levels of knowledge of Vitamin A or its dietary sources among mothers in the project area.

The CICSS I project has pioneered in Kenya the inclusion of Vitamin A in clinical treatment algorithms used by village based CHWs. This effort has been successful and has, arguably, contributed to the reductions in child deaths which have been observed and documented in the CICSS I project areas. It has been shown that Vitamin A improves treatment outcomes of CICSS targeted conditions, including ARI, diarrhea, malaria, malnutrition and measles.

The CICSS approach then, will be to continue to train and support CHWs in the inclusion of Vitamin A in treatment of targeted illnesses and to create knowledge of and demand for Vitamin A supplementation of

children 6-59 months of age and lactating mothers. Supplementation of these target groups has been shown to:

- Promote growth and recovery from childhood illnesses and enhance survival;
- Boost the amount of Vitamin A in breast milk so that the baby gets adequate amounts from the mother's milk; and
- Enhance post-natal immunity among mothers.

These objectives and actions are consistent with current MOH policy on the use of Vitamin A in the treatment of childhood illness and as a supplement. A copy of the current MOH guidelines for Vitamin A use is attached (Annex M). WHO /MOH/CMCI protocols for Vitamin A use are summarized below:

Table 10: WHO/MOH/CMCI PROTOCOLS FOR VITAMIN A USE

Target Group	Dosage	Timing	Who Administers
Children 6 – 11 month	100 000 IU	Pre – illness episode or on contact, not repeated until 30 days have elapsed	Trained CHW Trained MOH/HF staff Other agencies
Children 12-59 mo	200 000 IU	Pre – illness episode or on contact, not repeated until 30 days have elapsed	CHW
Lactating mothers	200 000 IU	Once within 8 weeks post -natal	CHW
Pre school age children	200 000 IU	Once every 3 to 6 months	CHW

The project will work actively with the DHMT and its other partners to insure the availability of Vitamin A capsules of appropriate dosages. Clearly, a sustainable supply of capsules is necessary to insure the success of this intervention. The project will assist the SHCs to manage BI pharmacies to insure that reliable supplies of Vitamin A capsules are available at the sublocation and village level through CHWs. Capacity building of both SHCs and CHWs to improve their management of drug stocks and supplies at their respective levels will be important components of this intervention strategy.

Control of Diarrheal Diseases (CDD) (20% of project effort)

Summary of CICSS II CDD Activities:

- Train CHWs to diagnose and treat diarrheal disease according to CMCI guidelines;
- Train CHWs and SHCs to be effective communicators and promoters of key preventive and care seeking behaviors by mothers and caretakers;
- Encourage/counsel mothers/caretakers to prevent dehydration through use of ORT strategies including use of home based fluids, ORS, continued breastfeeding for children with diarrhea and exclusive breastfeeding for children up to 4 to 6 months;
- Create and stock community level BI pharmacies to insure the availability of ORS to treat diarrhea cases according to CMCI guidelines;
- Build the capacity of community level SHCs to supervise, manage and support CHWs to treat diarrheal disease;
- Train MOH static facility staff in IMCI treatment protocols and correct treatment of patients referred by CHWs; and
- Build capacity of MOH facility staff and DHMT to supervise and support SHCs, BI pharmacies and CHWs.

Watery diarrhea, bloody diarrhea and persistent diarrhea account for a significant proportion of child death and morbidity in the program area. Acute watery diarrhea causes rapid dehydration in children, and if the child is not given appropriate fluids within 12 hours may die due to dehydration. Bloody diarrhea (dysentery) causes death through either dehydration or complications such as anemia, septicemia, and renal failure. Persistent diarrhea leads to morbidity and mortality by complicating malnutrition and dehydration. In the project area, a child experiences an estimated nine episodes of diarrhea per year (baseline and final

survey report). Diarrhea is endemic in Siaya, which also experiences occasional epidemics of cholera (most recent summer 1999).

The MOH recognizes diarrhea as one of the top three causes of deaths in children under the age of 5years (the MOH policy on CDD was revised in 1993 and Vitamin A capsule use was added in 1995). The MOH uses WHO/ MOH standard guidelines for case management of diarrhea (see guidelines attached in Annex N). MOH policy and guidelines include protocols for the management of acute watery diarrhea, dysentery and persistent diarrhea. These guidelines recommend a variety of therapies including the use of home-based fluids, packaged ORT-ORS solutions and the use of vitamin A for treatment of children with diarrhea. At static health facilities, antibiotics such as tetracycline, Co-timoxazole, and metronidazole are available and used for treatment as indicated by guidelines, however, continuous supplies cannot be assured.

MOH health workers are trained to distinguish three classes of diarrhea and are supervised by the DHMT. The quality of case management is good, however staff turnover is high. Traditional health providers and drug retailers do not have protocols for management of diarrhea. They respond to cases of diarrhea by giving herbal medicines and anti-diarrhea drugs including antibiotics. The traditional healers and drug retailers are neither supervised nor monitored. It is clear that these unsupervised health care providers deliver a significant (if unmeasured) percentage of services in the project area.

Locally, diarrhea is known as "***diep***", a direct translation for "loose watery stools, which occur three or more times a day".

According to the project KPC survey, only 18.7 % of mothers/caretakers interviewed knew the role of breast feeding in preventing diarrhea. However 65.7% reported use of safe water to prevent diarrhea and 88% of mothers/caretakers gave fluids to children during diarrhea episodes. Thirty five percent of mothers/caretakers reported using antibiotics to treat a recent case of diarrhea in their children.
Almost two-thirds, 63 %, of mothers/caretakers reported seeking advice concerning the treatment of a case of diarrhea outside of their homes.

Overall levels of knowledge of the causes of diarrhea are low in communities in the project area. Poor hygiene, teething of the child, new harvest and taboos such as adultery are perceived as causes of diarrhea. Knowledge of other key diarrhea risk factors is high and a majority of respondents gave poor water and sanitation services as an important risk factors for diarrhea. Care seeking is late as mother/caretakers tried other methods at home to prevent and/or treat dehydration prior to seeking assistance of a CHW or MOH health provider.

The project believes that watery diarrhea can be prevented and managed at home by using simple cost effective measures. The project will therefore emphasize prevention by encouraging exclusive breastfeeding for the first 4 to 6 months, adequate domestic and personal hygiene and use of pit latrines. During CICSS II, other avenues of breastfeeding promotion will be explored for example using TBAs, women groups and church groups. Home management using available materials like cereal based home fluids, boiled water, frequent and increase fluid intake and feeding. CHWs will encourage mothers/caretakers to use MOH ORS during diarrhea episodes. The project will work with local partners VHCs and CHWs to sensitize communities in accordance with MOH guidelines.

CHWs will be trained/refreshed to recognize bloody diarrhea or stools and persistent diarrhea (diarrhea for more than fourteen days) as a serious illness requiring prompt referral to health facility. CICSS will co-ordinate with the district MOH CDD program to improve community mobilization efforts as well as with other relevant sectors such as water and, education and KEPI immunization against measles.

At the household level project trained and supervised CHWs will give advice on good domestic and environmental hygiene, promote immunization against measles and the use of safe water and proper disposal of feces. They will provide mother/caretaker education and counseling using appropriate IEC materials on home therapy using safe water, increasing fluid intake when diarrhea strikes, increasing feeding during and after diarrhea. CHWs will be trained in proper application of CMCI case management protocols, good interpersonal communication skills and use of relevant IEC materials.

The CHWs will make ORS sachets available at low cost as determined by the SHC and BI pharmacy management structure. Currently the average cost for an ORS sachet is $0.1. The MOH provides free ORS when supplies permit or during cholera outbreaks. Private drug retailers charge a higher price for ORS than those currently set by the project. The project will train SHCs in drug procurement, logistics, financial management and problem solving.

The project will seek to coordinate MOH and project interventions and share responsibility for training and supervision of CHWs and VHCs as well as health facility staff. It will ensure advocacy, coordination and dialogue on MOH policy with partners and stakeholders

ARI (Pneumonia Case Management) (25% of project effort)

Summary of CICSS II ARI Activities:

- Train CHWs to diagnose and treat ARI according to CMCI guidelines;
- Counsel, educate and encourage mothers/caretakers on early care seeking behavior for their children under 5 years on recognition of fast breathing in a child with cough and difficult in breathing;
- Train CHWs to use relevant IEC materials to counsel mothers to seek treatment for children under five, from them or health facility early (within 12hours of onset);
- Train/refresh CHWs to correctly assess, classify, treat and/or refer children with cough and fast breathing and provide appropriate counsel and follow up of their clients according to CMCI guidelines;
- Train/ refresh CHWs in appropriate usage of co-trimoxazole to treat pneumonia.
- Train CHWs to provide initial treatment to children with severe pneumonia using co-trimoxazole, and refer early to the nearest health facility.
- Create and stock community level BI pharmacies to insure the availability of co-trimoxizole to treat ARI cases according to CMCI guidelines;
- Build the capacity of community level SHCs to supervise, manage and support CHWs to treat ARI;
- Train MOH static facility staff in IMCI treatment protocols and correct treatment of patients referred by CHWs; and
- Build capacity of MOH facility staff and DHMT to supervise and support SHCs, BI pharmacies and CHWs.

ARI is recognized by the project and the MOH as being among the three leading causes of morbidity and mortality in children under 5 years in the program area. Pneumonia leads to death rapidly if left untreated. The challenge to case management is early recognition by mothers/caretakers and prompt adequate treatment or referral at the community level. According the final KPC survey, the number of pneumonia episodes per child is as many as 8 per year.

The MOH response/approach to ARI includes standard integrated case management based upon training and supervision at four levels of health facility. Responsibility for the organization of services has been decentralized to the level of the district with technical guidelines with limited technical support coming from the central PHC Unit of the MOH. The CICSS CMCI protocols take this approach to the household and community levels and are consistent with current MOH guidelines for the treatment of ARI (see Annex O for MOH). The MOH is limited in its capacity and resources to supervise providers at all levels and the correct application of treatment guidelines. CICSS I has filled that role under the first four years of project activity. The project has trained 332 CHWs based at village level in CMCI algorithms for the recognition and treatment of ARI. Eight CBA and 2 FHC have also been trained, with the new staff to be trained by the third quarter. Thirty MOH staff at the HF level in the project area has been trained as well. They provide adequate supportive supervision through continuous clinical assessment, through the health facilities and support during home visits and review meetings.

Key local terms for ARI include:

Fast breathing – "**Yweyo mapiyo"**

Difficult breathing – "**Kore thung",**
Breastfeeding poorly - "**Ok odhodhi maber"**
Stopped feeding well – "**Okuchiem maber"**

Barriers to proper health seeking behavior include cultural beliefs, misconceptions of the cause of the disease and the source of the treatment and some expect the CHW services to be free so will not use it.

Care providers at all level will be trained and supervised to counsel mother/caretaker on appropriate use of antibiotics in terms of full dosage and side effects. Follow up of children with pneumonia by CHWs and other ARI care providers daily for 2 days to ensure recovery, treatment compliance and failure and to refer to the higher level of care. CMCI guidelines call for special treatment of ARI/pneumonia patients who present with symptoms of malaria as well. In such instances, if S/P has been used to treat malaria, co-trimoxazole is not to be used to treat accompanying pneumonia (CMCI guidelines call for patients to be referred to MOH static health facilities for treatment). The CICSS CMCI training guidelines and treatment algorithms are consistent with national policy and have demonstrated their effectiveness in reducing mortality due to malaria.

Under CICSS II CHWs and VHC will continue to counsel and educate mothers/caretaker on early care seeking behavior for children with cough and fast breathing as a sign of pneumonia. CHWs will be trained/ refreshed to recognize children with pneumonia and treat if mild or refer to health facility. In assessing pneumonia, CHWs will use cough and fast breathing according to WHO ARI recommendations i.e. children aged two months and below with respiratory rates above 60 per minute sand children aged between two months and five years with respiratory rate above 50 per minute. The emphasis will be children 0-2 months. CHWs will be refreshed/trained to provide adequate treatment of pneumonia at the village level using co-trimoxazole. SHC management capabilities will be reinforced in order to ensure a constant supply of co-trimoxazole through the BI pharmacies at the sublocation level. The project will continue to strengthen coordination, supervision and training of CMCI and IMCI by health providers at all levels in collaboration with the MOH to ensure compliance with relevant guidelines and protocols.

Key messages for behavior change have been described in the section of Communication for Behavior Change.

Malaria (25% of project effort)

Summary of CICSS II Malaria Activities:

- Train/ retrain CHWs to correctly assess, classify, treat and refer malaria cases according to CMCI guidelines;
- Train/ retrain CHWs to use S/P correctly to treat children age's 2 months to 5 years in accordance with MOH recommended guidelines;
- Train/ retrain CHWs how to provide prophylactic treatment using S/P to all pregnant women with emphasis on the first and the second pregnancy;
- Train CHWs to educate mothers/caretakers of children under two years and expectant mothers to sleep under IMN and re-dip as necessary;
- CBA, CHWs and VHC will educate communities on environmental activities such as clearing of breeding grounds and stagnant water;
- Mobilize communities through the VHCs against malaria by promoting the purchasing and proper (including retreatment) use of ITBs;
- Create and stock community level BI pharmacies to ensure the availability of S/P to treat malaria according to CMCI guidelines;
- Build the capacity of community level SHCs to supervise, manage and support CHWs to treat malaria;
- Train MOH static facility staff in IMCI treatment protocols and correct treatment of patients referred by CHWs; and
- Build capacity of MOH facility staff and DHMT to supervise and support SHCs, BI pharmacies and CHWs.

The estimated level of morbidity attributable to malaria in Siaya district is 65.5% (unpublished district MOH annual reports 1995-1998). Malaria is holoendemic in most of Siaya district. It is caused predominantly by *Plasmodium falciparum.* Malaria is transmitted by bites from infected female *Anopheles species.* Malaria transmission occurs throughout the year, although peak transmission occurs after the rainy season. Children under 2 years and women during the first pregnancy are most predisposed to severe and complicated malaria. The high burden of disease due to malaria is confounded by the fact that, *Plasmodium falciparum* in the area (and in all of East, Central and West Africa) is resistant to chloroquine. This has prompted the MOH to modify its policy on the treatment of malaria. Current national policy calls for the treatment of malaria with S/P as a first line drug and chloroquine only on prescription.

MOH facility staff follow current national guidelines for malaria case management (copy attached, Annex P). According to the national guidelines, CHWs are allowed to provide preventive services for malaria. The CICSS I project obtained authorization from the Director of Medical Services MOH allowing CHWs to use S/P for treatment of presumed malaria cases. This was prior to MOH approval of S/P as an over the counter drug and the official first line anti-malaria drug. The other MOH policy relevant to the CICSS project is treatment of malaria presenting together with pneumonia. In such instances, if S/P has been used to treat malaria, co-trimoxazole is not to be used to treat accompanying pneumonia (CMCI guidelines call for patients to be referred to MOH static health facilities for treatment). The CICSS CMCI training guidelines and treatment algorithms are consistent with national policy and have demonstrated their effectiveness in reducing mortality due to malaria.

The current MOH health facility drug kit contains both chloroquine and S/P despite chloroquine's relative ineffectiveness. With the current MOH policy of S/P as the first line drug in this region, there is an indication that chloroquine is slowly being phased out of the drug kits. Fever is best managed by cold compresses and paracetamol and this advocated by the project. The average project cost for an adult dose of S/P is $0.60.

Current MOH malaria policy and guidelines are also used by CHWs to provide presumptive and/or prophylactic treatment to all pregnant women especially during their first and second pregnancies.
Policy calls for pregnant women to receive three tablets of S/P at the beginning of second trimester and another dose at the beginning of the third trimester. The treatment should be given at the antenatal clinic at the same time as tetanus toxoid immunization of the mothers. This protocol is both acceptable and feasible and has been shown to lead to reductions in low birth weight (LBW) a major complication of malaria among pregnant women. LBW is closely associated with infant morbidity and mortality.

"Del maore" is the local term for fever, the local term for malaria is ***"midhusi".*** KPC results and other sources of information indicate that mothers understand malaria. Malaria is more readily recognized as an adult illness rather than a childhood illness unless the child develops convulsions. People believe malaria is transmitted from being rained on or by eating cold foods, such as bananas and sugar cane. People also believe that, a child needs to get infected with malaria in order to develop resistance (this is, of course, partially true in that repeated infections in children (who survive) does lead to a level of immunity among adults). Sixteen percent of the mothers interviewed during the CICSS I KPC survey consulted a CHW when the child had malaria and 39% consultedat a health facility, traditional healer or drug retailer.

CICSS I project provided each SHC and their BI pharmacies with initial stocks of bed nets and Peripel 55% (Peripel is a permethrine derivative) for treating nets for sale to households. This permethrine is provided to communities is packaged in large quantities (1 liter, enough to re-dip more than 50 nets) and not single (one net) doses/quantities.

The project also assisted the communities to develop a revolving fund for re-stocking both the bed nets and Permethrine. Nets were imported at a cost of Kshs 320 ($ 4.57) and tax exempted. The dipping costs are Kshs 60. The project assumed some costs and currently dipped nets cost Kshs 300. This has increased affordability, however utilization still remains low. There are no indications as to how these subsidized prices might be maintained after the end of CICSS II project support. The project will continue to explore

sources of cheaper bed nets and permethrine (packaged in smaller, more affordable quantities)for dipping for the communities.

The number of households using IMNs is currently 27% (final KPC CICSS I). Community have very low levels of compliance with recommended re-dipping schedules mainly due to high cost of Peripel and belief that treated and untreated bed nets are equally effective (Basimike 1998). The decision as to whether the bed nets are used by the mother and children< 5years in a particular household is a privilege of the head of the household.

Through the CICSS II project, CHWs and SHCs will use its CHW based communication strategies to increase health-seeking behavior for children with fever at the household level and to promote sleeping under treated bed nets especially for children less than 2 years and pregnant mothers.

Child Spacing (5% of project effort)

Summary of CICSS II Child Spacing Activities:

- Train CHWs and SHCs to educate and counsel women about availability of child spacing services;
- Sponsor MOH training of CBDs in communities which do not have them;

Despite the clear need for improved child spacing services in the project area, the project will limit its activities in this area to supporting a modest set of activities to increase the availability of contraceptive services and products and create demand and awareness of the availability of those services. It will not directly strengthen or support child spacing service(s) delivery.

The 1999 KPC survey conducted by the CICSS I project indicates that only 15.8 % of mothers are using a child spacing method, although 67% did not want to have a child within 2 years, suggesting a large unmet desire for child spacing services in the project area.

The MOH response to the need and desire for family planning services has been to train and supply Community Based Distributors (CBDs) in a number of villages throughout Siaya District. The establishment of this network of CBDs was carried out in collaboration with another of MOH's partners, GTZ. The network does not cover all villages in the project area however. GTZ has no resources to train additional CBDS. The project will, therefore, sponsor the training and equipping with bags and penis models of CBDs in villages in the project area which are not currently covered. Management and supervision of these (and all CBDs) will be responsibility of the existing MOH systems in place. Five of the MOH static health facilities in the project area also deliver child spacing/family planning services. The delivery of child spacing services and supplies through CBDs is consistent with national MOH policy (a copy of Kenya's reproductive health policy and service delivery standards is attached Annex Q).

In addition, the project will utilize and engage its network of community educators (CHWs and SHCs) to create awareness of the availability of child spacing services. Appropriate IEC materials will be adapted/developed for use by CHWs and SHCs in this effort.

STI/HIV/AIDS Interventions (5% of project effort)

Summary of CICSS II STI/HIV/AIDS Activities:

- Train CHWs and SHCs to be effective communicators and promoters of early STI symptom recognition and appropriate care/treatment seeking behaviors;
- Create and stock community level BI pharmacies to insure the availability of condoms for free distribution to youth groups and others in the community; and
- Coordinate with MOH staff in supporting training static facility staff in STI treatment according to guidelines.

The effect of the HIV/AIDS pandemic in Kenya in general and Siaya District are significant and undeniable. Estimates of HIV prevalence in Siaya District range from 30% to almost 50% of women 15-49

years. Tests among blood donors and women attending antenatal clinics indicate that 25-35% of those tested were HIV positive. The Siaya District MOH annual report indicates that 38% of blood donors tested in the district were HIV positive. The levels of infection among children are not known. Data suggest that the greatest increases in the rate of HIV infection is taking place in young adults (10-19 years old age cohort).

The HIV/AIDS pandemic has been declared a "national disaster" by Kenyan President Daniel arap Moi and a national AIDS council put in place in 1999. A national HIV/AIDS policy has been in place since 1985. Full reporting of cases in the district is limited by a lack of testing and counseling services.

Infection rates for other STIs are not known. Of antenatal women tested for syphilis, 9% tested positive. In 1999 the MOH DMO in Siaya reported that 1004 cases of genital ulcer disease were treated (no rates available) of which 13.4% also tested positive for syphilis. No other figures were/are available for rates or numbers of other STIs, but they are recognized as a major concern for the DHMT. Serologic tests for the diagnosis of STIs are available only at the district hospital.

STI treatment services are available at all MOH static health facilities in the project area. One MOH staff person at each of the facilities has been trained in the current MOH algorithms and strategies for STI treatment. The MOH allocates a separate drug kit to each facility, which contains drugs specifically intended for the treatment of STIs. Despite this, the MOH still considers the availability of diagnostic and treatment services for STIs to be inadequate. The national treatment guidelines for STIs is part of Annex O, the National Reproductive Health Strategy.

Levels of knowledge of STI transmission among women in the project area (as measured by the 1999 KPC) are quite high. When surveyed, 85% of the mothers interviewed knew that sex was the means of transmission for STIs. A majority (65%) knew that condoms were a method of prevention but only 20% reported having used one. Seven percent of the mothers reported having an STI during the past year. Few of these women, however, sought treatment at all, and among those who did, most sought it late. Knowledge of HIV/AIDS and prevention methods is much lower.

To complement the services and activities currently available in the district the project will train and motivate its network of community educators, CHWs and SHCs to transmit key messages to the communities in which they work. These messages will emphasize recognition of STI symptoms and prompt care seeking behavior. The project will also promote condom use by introducing them (for free distribution) in the community based BI pharmacies. It will motivate all possible existing community structures (with an emphasis on youth groups in the project area) to act as outlets for these condoms. Condoms will be included in the CHW drug kits but few have been distributed through this avenue. The project will work with the DHMT to adapt existing IEC materials for use by CHWs and SHCs in this effort.
In addition, the project will coordinate with the MOH to support (and possibly sponsor) training of remaining MOH static facility staff in the correct treatment of STIs according to national guidelines.

IMCI

The project will support and complement national efforts to implement IMCI in MOH fixed health facilities. It has pioneered the creation of community based structures (and will continue to experiment with other structures such as shop keepers and traditional healers who may be more sustainable than the current network of CHWs, SHCs and BI pharmacies) capable of delivering integrated child survival services at the community level. It should be noted that the CMCI approach developed by the project addresses a limited number of child illnesses (ARI, malaria, diarrhea, measles) and does not specially address the sick newborn.

The MOH recognizes IMCI as a strategic approach and therefore a complement and not a substitution for other child survival programs and services. The MOH has begun implementing IMCI in three districts (out of 52 total) at the static facility level using WHO/UNICEF guidelines and according to the MOH's national IMCI strategy (a copy of the national IMCI strategy document is attached). Siaya is not one of the three designated pilot districts. The MOH has also emphasized the role of community involvement in IMCI

implementation and its eventual success in reducing child deaths. It has agreed that the integrated CMCI approach developed by the CICSS project is a sensible approach and compliment to its IMCI activities given the fact that most children die at home. As a complement to IMCI then, the project will assist the MOH to implement IMCI training of personnel at its static health facilities in the project area. This will be done using the MOH TOT strategy and materials and will insure that adequate referral and treatment services are in place to complement the home/community based services of CICSS CMCI.

Close coordination and mutual support between MOH IMCI activities and CICSS CMCI implementation is a key element of project strategy and implementation plans. CICSS reinforces the board goals of current MOH health sector decentralization and other reforms designed to ensure curative and preventive services are efficient, effective, accessible and affordable to the end users. The CICSS II project should be seen as an important experiment in health sector reform as well as strengthening child survival services by developing mechanisms to push the benefits of IMCI out of the fixed facility and down to the household and community level.

The project has chosen to make the sharing of its results within the national policy and strategic debate within the health sector as an explicit objective. It will pursue all available means to insure that the results of its community based efforts are integrated into national plans for more widespread implementation of IMCI. This strategy of technical leveraging will allow the CICSS project to eventually expand its effect and impact beyond Siaya District to a broader, possibly national level.

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Annexes

A. Response to Application Review Comments

B. Response to Final Evaluation Comments

C. Report of Baseline Assessments

D. Memorandum of Understanding

E. CVs of Key CARE Staff

F. Map of program location

G. Training Materials

H. IEC Strategy

I. Monitoring and Evaluation System Plan

J. Case Management of Childhood Illnesses Guidelines

K. National Immunization Schedule

L. Vaccination and Health History Cards

M. MOH Vitamin A Policy

N. MOH Control of Diarrheal Diseases Policy

O. MOH Acute Respiratory Infection Guidelines

P. MOH Malaria Guidelines

Q. MOH Reproductive Health Guidelines

R. MOH IMCI Guidelines

Participants in DIP preparation workshop

1. Steve Akello	Community Based Advisor	CARE
2. Carolyne Anyango	Community Based Advisor	CARE
3. Manases Nyanjom	Field Health Coordinator	CARE
4. Julius Gwada	Field Health Coordinator	CARE
5. Benta Osamba	Training Officer	CARE
6. Washington Omwomo	Monitoring and Evaluation Officer	CARE
7. Moses Kigani	District Clinical Officer	MOH
8. Rose Amollo	District Public Health Nurse	MOH
9. Isaac Onyango	District Health Information Officer	MOH
10. John Okari	Project Coordinator	World Vision
11. Festus Illako	Project Manager	AMREF
12. Grace Miheso	Acting Project Manager	CARE
13. Jim Setzer	Child Health Advisor	CARE

Other Persons Contacted During DIP Preparation

NAME	DESIGNATION	ORGANIZATION
1. Leo Roozendaal	Country Director	CARE Kenya
2. Susanne Niedrum	Assistant Country Director	CARE Kenya
3. Muhoro Ndungu	Technical Advisor	CARE Kenya
4. Jon Mitchell	Regional Director, CARE RMU	CARE USA
5. Jumbe Sebunya	Asst. Regional Director, CARE RMU	CARE USA
6. Dr. Hassan	Head, Primary Health Care Unit	MOH - Hq
7. Dr. Richard Muga	Director of Medical Services	MOH - Hq
8. Dr. Misore	Provincial Medical Officer	MOH - Kisumu
9. Eight DHMT members		MOH - Siaya
10. Boniface Maket	National Health Director	World Vision
11. CICSS staff	Ag. PM, TO, M&E Officer, 4 FHC	CARE

8 CBA

12. Sixteen CHWs from Obambo Sublocation

13. Twenty five Sublocational Health Committee members from 7 sublocations

14. Twenty five community leaders (Chiefs, Assistant Chiefs, councillors, women and youth group leaders.

15. Victor Masbayi	Child Survival Program Officer	USAID
16. A.B.O Olukayode	Program Director	Malarone Donation Program
17. Aggrey Oloo	Malaria Technical Advisor	WHO

Annex A:

Response to Application Review Comments

The project team feels that the comments raised by the application reviewers have been addressed through the D.I.P. process.

Annex B:

Response to Final Evaluation Recommendations

CARE INTERNATIONAL in KENYA
Community Initiatives for Child Survival Project

STAFF REACTION TO FINAL EVALUATION REPORT – 17 February 2000

Problem one
Limited project Impact on knowledge and healthy behaviours in the community

Recommended action
Finalize the development of IEC materials; develop and implement a strategy of educating to promote behaviour change

Staff reaction
Accepted and camera ready material are ready for mass production. Training of staff and project participants is underway.

Problem two
Need to Improve and assure the quality of case management

Recommendation action
Refine supervisory checklist and assure its appropriate completion; consider decreasing the number of CHEs, retaining those who perform best, and providing them with transportation.

Staff reaction
2a) Accepted, the current supervisory checklist will be refined and the skills of project and MOH staff using it to be enhanced. Feedback will be routinely given to the users. Dialogue had been initiated with the MOH to take up more of the supervisory roles.

2b) Some rejected, it will not be possible to decrease the number of CHEs and provide them with transport immediately. The CHWs currently have a high level of case management because of the close proximity of the CHWs and CHEs; they live with them in the community. Having CHEs acquire motorcycle will require them to live in Siaya town for security reasons and commute to the villages daily. This option is also unaffordable due to budgetary constraints. Nevertheless, a mechanism of decreasing them over the life of the project will be worked out in the DIP, with the MOH staff to take a more active role in supervision.

Problem three
Few children <2 months old are treated by CHWs

Recommendation action
Encourage routine home visits among newborns (weekly during the first month and every two weeks during the second)

Staff reaction
Accepted and to be implemented. The use of the maternal register is to be reinforced.

Problem four
Declining CHW motivation

Recommendation action
Develop strategy to raise funds in a sustainable fashion to support incentives for CHWs; field test in a few sublocations.

Staff reaction
Accepted. This is an area that has generated a lot of discussion in the community. Both the project and the community realize the constraints with developing IGAs in the community. The current CHWs/VHCs are getting a commission on the sale of the drugs/nets and other avenues are being explored.

Problem five
Lack of a reliable supply of medications for community pharmacies

Recommendation Action
Record and review how frequently medications are out of stock; identify possible alternative sources of medication;

Staff reaction
Accepted. Alternate sources for supply of medications to be explored together with the MOH and community. Two options identified already with agreements in place. Visits to successful community pharmacies planned to learn best practices of pharmacy management.

Problem six
Lack of programming addressing family planning and sexually transmitted infections

Recommendation Action
Hire a staff person to coordinate FP and STI activities; allocate sufficient funds to support programming.

Staff reaction
Following the DIP preparation process and the USAID review of the proposal, the FP/HIV/STI component will be implemented through the MOH. The project will support MOH activities in this area through supporting the training of TBAs and CBD agents. CHWs and VHCs will be trained to pass on key messages on HIV/STI recognition and prompt care seeking behaviour from existing health facilities. The project will allocate one of its FHCs as a point person to ensure that these activities are followed up on. Sufficient funds have been budgeted in the next phase to support this component.

Problem seven
Need to enhance the community's sense of ownership of project activities

Recommendation Action
Promote project activities in the community; implement IEC strategy with community ownership as a component.

Staff reaction

Accepted, the project will assign a staff as a point person for the continuos social mobilization in collaboration with the MOH personnel. The developed IEC strategy focuses on promoting community ownership of the CHWs/VHC and understanding their roles and responsibilities.

Problem eight
Need to increase involvement of the District MOH in project planning and management

Recommendation Action
Establish coordination with joint decision making in key project areas.

Staff reaction
Accepted, an aggressive effort will be made to promote greater joint planning and decision making of project activities between the project and the DHMT. The DHMT will be encouraged to take the lead in inviting the CICSS project staff to their management meetings and a greater emphasis on the follow up of action points. As part of this joint planning process, DHMT members were actively involved in the DIP preparation.
Currently, the two partners are working towards coming up with a formal agreement where each party's roles and responsibilities will be well defined and accountability will be encouraged.

Problem nine
Lack of resources that will help sustain project activities

Recommendation Action
"Market" the benefits of the program to the community, the civil administration, the District Health Management Board, and other key decision makers; pilot test expanding the drugs and supplies available at the community pharmacy to generate income.

Staff reaction
Accepted, the project needs more aggressive marketing. Plans are underway to ensure that the project is highlighted in the District Development Committee meetings, where it is a member. The recently developed IEC strategy focuses on marketing the benefits of the program in the community.

Pilot testing expanding the items sold at the pharmacy is being followed up by the TO and is ongoing in a few sublocations.

Problem ten
Inability of communities to interpret and use data generated by the project

Recommendation action
Summarize key information and increase communication with Village Elders, assistant Chiefs, and Chiefs;

Staff reaction
Accepted, VHCs will take a more proactive role on supervising the collection of data, doing the actual summary and analysis.
The collaboration with CCHI will enable the project update the HIS training curriculum for the VHCs and CHWs in April 2000.

Problem eleven

Need to improve the ability of project staff to use data to identify problems and develop solutions.

Recommendation Action

Routinely summarize data from chalkboards, and supervisory forms; routinely analyze and provide feedback on the quality of case management and the activity of CHWs; analyze data to determine which CHEs may need assistance in assuring quality and motivation; identify career development/Training opportunities for project staff; cross train staff members as broader scope of knowledge increases ability to solve problems; discuss problems as a group and analyze and discuss how data can help provide solutions.

Staff reaction

Accepted and the project will make greater use of available data to enhance project implementation. Part of the benefits of the CCHI collaboration will be the training of staff on data collection and use

Problem twelve

12. Lack of integration of data from the project with that collected by the MOH.

Recommendation Action

Coordinate with the District health information system officer.

Staff reaction

Accepted, it is planned that the HIS officer from the MOH will be attached to the project. This will ensure the standardization of the data collection tools and a wider use of available results.

Final Evaluation Worksheet
Time line for MOH/CICSS

Problem	**Recommended action**	**Accept/ Reject**	**Implementing organization** ***Person***	**Implementation Date**
1.Limited project impact on knowledge and healthy behaviors in the community	Finalize development of IEC materials; develop and implement a strategy of educating to promote behavior change	Accept	CARE/District MOH (DMOH) *TO*	Ongoing
2.Need to improve and assure the quality of case management	Refine supervisory checklist and assure its appropriate completion; consider decreasing the number of CHEs, retaining those who perform best, and providing them with transportation	Accept, Planned during life of project Reject on transport	CARE/DMOH *CICSS team with the PM as the leader*	Immediately By second phase of the project
3. Few children <2 months old are treated by CHWs	Encourage routine home visits among newborns (weekly during the first month and every two weeks during the second)	Accept	CARE/DMOH *MOH, M&E, CBA*	Immediately
4. Declining CHW motivation	Develop strategy to raise funds in a sustainable fashion to support incentives for CHWs; field test in a few sublocations	Accept	CARE/DMOH	Immediately
5. Lack of a reliable supply of medications for community pharmacies	Record and review how frequently medications are out-of-stock; identify possible alternative sources of medication;	Accept	CARE *PM,TO*	Ongoing
6. Lack of programming addressing family planning and sexually transmitted infections	Hire a staff person to coordinate FP and STI activities; allocate sufficient funds to support programming	Accept	CARE/DMOH *MOH, PM,FHC*	By February 2000
7. Need to enhance the community sense of ownership of project activities	Promote project activities in the community; implement IEC strategy with community ownership as a component	Accept	CARE/DMOH *TO, FHC*	Ongoing
8.Need to increase involvement of the District MOH in	Establish coordination with joint decision making in key project	Accept	CARE/DMOH	Agreement by March,

project planning and management	areas		*PM, DMOH*	Rest ongoing
9. Lack of resources that will help sustain project activities	Market the benefits of the program to the community, the civil administration, the District Health Management Board, and other key decision makers; pilot test expanding the drugs and supplies available at the community pharmacy to generate income.	Accept	CARE/DMOH *PM, DMOH* *TO*	February 2000
10. Inability of communities to interpret and use data generated by the project	Summarize key information and increase communication with Village Elders, Assistant Chiefs, and Chiefs; consider developing a quarterly newsletter.	Accept	CARE/MOH *M&E*	CCHI in April 2000

Annex C:

KPC and questionnaires

COMMUNITY INITIATIVES FOR CHILD SURVIVAL IN SIAYA

(CICSS)

REPORT

ON

FINAL KPC SURVEY

CORE TEAM:

DR. GRACE MIHESO - ***Ag. Project Manager***

BENTA OSAMBA - ***Project Training Officer/Ag. APM***

WASHINGTON OMWOMO - ***Monitoring & Evaluation Officer***

July 1999

INTRODUCTION:

Background Information:

The goal of the CARE Community Initiatives for Child Survival in Siaya (CICSS) Project was to reduce morbidity and mortality among children under 5 years of age in approximately 201 villages in the 23 sub-locations; 3 Divisions of Boro, Uranga and Karemo, Siaya District in Nyanza Province, Kenya, with an estimated population of 63,083. The project's estimated beneficiaries per year were14, 609 Women 15 – 49 years, 2136 0- 11 months, 2299 children 12 – 23 months, 5766 children 24 – 59 months.

The project's main intervention areas focussed on the three major causes of child mortality namely malaria, acute respiratory infections (ARI) and diarrheal diseases as well as vaccine preventable diseases. Though intended to have intervened in the areas of FP/HIV/AIDS/STI, during the life cycle of the project much was not done in this particular area. Any change realized in the KPC Survey results therefore are the effects of other agencies operating in the same catchment area such as Diocese of Maseno West, CISS, Maendeleo Ya Wanawake and Ministry of Health.

The treatment of children through the project's CHWs focussed on the improved home care and expanded understanding and use of the WHO Standard Case Management Concept. The Objectives of the Interventions were:

Malaria:- Increased community knowledge and use of prevention and treatment measures for uncomplicated malaria for pregnant women and children under five within the home environment as well as early recognition and quick referral for more severe cases.

ARI:- Increased early recognition and quick referral of serious respiratory infection to appropriate health care facilities by mothers, other caretakers and community health workers (within 24 hours).

Diarrhoeal Diseases:- Increased community knowledge and use of diarrhoeal disease prevention and treatment measures for infants and children within the home environment coupled with early recognition and referral to appropriate health care facilities for complicated cases.

Vaccine Preventable Diseases (EPI):- Increased immunization coverage and reduced drop-out rates for children and pregnant women through community surveillance and promotion (IEC)

FP/HIV/AIDS/STI:- Increased community knowledge and use of methods and practices which are recommended for protection against STD/HIV/AIDS infections among sexually active individuals. Further to this, increased use of modern contraceptive methods among people aged 15 – 49 years.

OBJECTIVES OF THE SURVEY:

The objectives of this survey in overall were to assess mothers' KNOWLEDGE, PRACTICES and COVERAGE for the intervention areas below:

Malaria:- Increased community knowledge and use of prevention and treatment measures for uncomplicated malaria for pregnant women and children under five within the home environment as well as early recognition and quick referral for more severe cases.

ARI:- Increased early recognition and quick referral of serious respiratory infection to appropriate health care facilities by mothers, other caretakers and community health workers (within 24 hours).

Diarrhoeal Diseases:- Increased community knowledge and use of diarrhoeal disease prevention and treatment measures for infants and children within the home environment coupled with early recognition and referral to appropriate health care facilities for complicated cases.

Vaccine Preventable Diseases (EPI):- Increased immunization coverage and reduced drop-out rates for children and pregnant women through community surveillance and promotion (IEC)

FP/HIV/AIDS/STI:- Increased community knowledge and use of methods and practices which are recommended for protection against STD/HIV/AIDS infections among sexually active individuals. Further to this, increased use of modern contraceptive methods among people aged 15 – 49 years. Much was not done in the area of FP/HIV/AIDS/STI apart from the mobilization, and selection of CBRHSPs/VHCs in 5 sub-locations which were to act as pilot areas.

SCHEDULE OF ACTIVITIES:

- April 19th. – 4th. June 1999 – Questionnaire Development completed
- 31st May 1999 – Supervisors' training completed
- 3rdJune 1999 – Field testing of the Questionnaire done and final adjustments completed on 4th. June 1999.
- June 1st. – 4th. 1999 – Interviewers Training completed
- June 7th. – 16th. – Data Collection Completed (600 Interviews of 63 Questions in 60 Clusters)
- June 11th. - 17th. – Data entry in EPI INFO Statistical Software completed
- June 21st. - 23rd. – Data Cleaning completed
- June 24th. – 28th. - Data Analysis completed
- June 29th. – July 2nd. – Draft Report produced

METHODOLOGY:

KPC SURVEY QUESTIONNAIRE

Final KPC Questionnaire was composed of 63 questions, which were distributed as follows:

- Q# 1 – 6 deal with demographic, social and marital status data
- Q# 7 – 8 deal with mother's occupation and caretakers
- Q# 9 – 12 deal with breastfeeding and other nutrition practices
- Q# 13 –26 deal with diarrhoeal disease control (Knowledge, Practice, Health seeking behaviour, treatment cost)
- Q# 27 – 33 deal with ARI
- Q# 34 – 38 deal with Child and Maternal Immunization
- Q# 39 – 42 deal with Family Planning
- Q# 43 – 53 deal malaria and treated mosquito nets
- Q# 54 – 56 deal with HIV/AIDS
- Q# 57 – 58 deal with Community Participation
- Q# 59 – 63 deal with STD

This Final KPC Questionnaire had some questions written in both English and Luo to maintain same understanding in terms of interpretation amongst the supervisors, interviewers and the respondents. Further clarity to the meanings of various questions was made during the training of both supervisors and interviewers and after the field testing. The objective of each specific question was exhaustively explained.

SAMPLE SIZE DETERMINATION:

The sampling methodology adopted for this survey is that of 30 cluster sampling according to the WHO/EPI model. For the determination of the sample sizes, the following formula was used: $n=z^2\ pq/d^2$

where n = the sample size, z = statistical certainty chosen, p= coverage rate; level of knowledge, and q=1 – p , d= degree of precision.

The sample size was set up in the following way: the degree of precision (d) was set up at 0.1 and the p was set at 0.5. Thus, the resulting minimum sample size was 210, which was increased at 300 taking non-respondents into account. The number of clusters was 30 with a sample size equal to 300 resulting into 10 mothers with children less than 2 years being drawn from each cluster for interviewing. Though there were two surveys conducted, one in the Intervention area and the other one in the Non-intervention areas, this draft report will only discuss the findings for the Intervention areas.

SAMPLE SELECTION:

The methodology used involved making a sampling frame of villages in all the sub-locations with their respective population figures. The cumulative population figures for the villages were then calculated to generate the total cumulative population. The total cumulative population was then divided by 30 clusters to get the Sampling Interval. A random number table was then generated in EPI INFO software. Using the 20 shillings currency note, a random number was picked which was less than the sampling interval. The village whose cumulative population equaled or was less than the random number was

picked as the first cluster. The next clusters were than picked by adding the sampling interval to the random number and picking the village whose cumulative population figure was equal to or the resulting figure was within it.

The methodology demands that the supervisor locate the central point within the cluster for the interviewers. The central point in the cluster was determined by spinning a ballpen and the direction to be followed was determined by where the lid of the pen points. Depending on where the lid of the pen pointed, the first household was then identified where a mother with a child less than 2 years lived. Definition of a household was a house where people live, cook and eat from. The next households for interview were then determined based on the direction where the door faced.

The interviewers then interviewed 10 mothers from each cluster. In cases where the interviewers exhausted all households in a cluster without completing 10 interviews, they moved to nearest village. At this point a pen had to be spinned to determine which direction to take.

METHOD OF DATA ANALYSIS:

The data entry and analysis were all performed within the project offices using the EPI INFO version 6.0. Analysis involved the generation of frequency tables of various variables coupled with cross-tabulation of two variables. The analysis results were then compared with both baseline results and the set targets for the project. Much more advanced analysis will be performed during the evaluation exercise and report writing.

RAPID KPC SURVEY TRAINING:

There were 6 supervisors (3 senior district MOH officers and 2 Project Field Health Supervisors and 1 Project Community Health Extensionist). This team was beefed-up with two of the Core Team Members, who also ensured that all was well in the field including following the agreed upon procedures of the 30 cluster methodology. The enumerators were 16. This team was made-up of young men and women who demonstrated high experience in carrying out surveys. The project decided not to use its staff as a way of avoiding bias in data collection. The training duration for supervisors was 5 days while interviewers underwent a four-day training session.

The training included the purpose of the survey, sample size, sampling methodology, starting point in a cluster, understanding of the meaning of each question and how to ask each question. Numerous one to one role plays were used to familiarize the interviewer with the technique to be used in asking different types of questions. Both supervisors and interviewers conducted numerous role plays while during field testing of the questionnaire. Both the supervisors and the interviewers were taken through their roles. They were asked to brainstorm and come up with their responsibilities. These were then summarised with the trainers' list of responsibilities. The specific tasks for supervisors included:

- selecting the starting point in each cluster so as to maintain the same procedure in all the clusters as is required in the WHO 30 Cluster Survey Methodology;
- Observing one interview each day per interviewer

- Checking (auditing) the completed questionnaires in each cluster location for accuracy and completeness and then to sign each when finished.

The team then left for field testing of the questionnaire where each interviewer completed 3 interviews while the supervisors completed one. From the field, first the supervisors took the interviewers that they assigned through the field experiences, particularly with regard to questionnaire administration. The next day in the morning session, participants were allowed to raise issues that came up in the field. Finally, all adjustments were on the questionnaire and all was set ready for the day survey was to start.

SURVEY RESULTS:

Age Distribution:

The mean age of mothers surveyed was 26.1years while that of children was 9.7 months. Out of the mothers in the survey, there were 47 (15.7%) mothers in the age of 35 years and above which represent a high-risk group because of the upper age curve. This compares relatively above the proportion of mothers in this group interviewed in the Baseline Survey (26 mothers). The range in mother's age was from 16 years to 48 years. The combined high and low age mothers included 87 mothers (29.1%) who represent a high risk cohort of either too young or too old, while the teenage mothers numbered 76(25.4%). The largest five-year cohort as in baseline was 20 to 25years where 128(42.8) mothers were stratified. There were only 11(3.7%) mothers in the age bracket of 40 to 48 years. Just as in the Baseline Survey, the most frequent caretaker recorded for children under two years was siblings 135/300(45%), followed by the mothers themselves 99/300(33%), then other family members (25.3%), grandmothers, husbands, maids, friends and then others in that order.

MALARIA

One hundred and three mothers reported taking anti-malarials during their last pregnancy. 13 reported taking chloroquin but only 3 reported taking it correctly (weekly). 41/103(39.8%) mothers reported taking fansidar during their last pregnancy while only 15/41(36.6%) reported taking it correctly. Taking 103 mothers as the denominator, 15/103(14.6%) of mothers correctly took chemoprophylaxis against malaria during their last pregnancy. The point prevalence of child malaria two weeks prior to the survey was found to be 149/298(50%). During the malaria episode 44/149(29.5%) were given chloroquin and 15/149(10.3%) were given fansidar. 52/149(34.9%) were taken to health care facility while 24/149(16.1%) were taken to CHW. Out of the 24 children taken to CHW, only 12/24(50%) were taken within 24 hours. Out of those who were taken to other health care providers, 31% of them were taken within 24 hours. This is attributed to the availability and increased accessibility to the CHWs in the community. In the entire project areas, there are 8 health facilities, which are sparsely distributed while in every village there are 2 project CHWs.

Out of the mothers who sought treatment from the CHWs, 91% of them spent less than Kshs. 100 while for those who sought treatment from other health care providers, 73% of them spent less than Kshs.100. This implies that the cost of health care being provided by the CHWs is still the most affordable. Out of the mothers who took their children to the CHWs, 86% who had malaria had fully recovered while for those who sought treatment

from other health care providers 59% had fully recovered. This demonstrates how effective fansidar is compared to chloroquin. All the CHWs dispense fansidar while health care facilities dispense chloroquin, which many people including children have developed resistance to.

80/297 (26.9%) households had mosquito nets while only 20/79 (25.3%) of the mosquito nets had ever been treated but not necessarily since December 1998. And since December 1998 to the time of the survey, 10/80 (12.5%) of the mosquito nets had been treated.64/300 (21.3%) of mothers and their children who are less than two months old sleep under mosquito nets.

Breastfeeding and Nutrition

The KPC survey sought to establish the mothers' knowledge on the proper age when weaning should start. This was found to be 33.0% (98/297) compared to 28.6% at the baseline. 45.5% (135/297) of mothers recorded that weaning should occur between the 1 month and 4 months which compares to 52.5% at baseline. 20.9% (62/297) of mothers reporting weaning children at an age less than 1 month. In overall, there is a 4.4% increment in the appropriate knowledge on weaning practices. There was also a reduction of 7.0% in the proportion of mothers reporting inappropriate weaning practices (between 1 and 4 months) when compared to baseline results.

Diarrhoeal Disease

In the question which sought to find out the proportion of mothers who could identify 2 key modes of prevention of diarrheal diseases, 197/300 (65.7%) of mothers indicated the use of safe water as a means of preventing diarrheal diseases. 72/300 (24%) of mothers indicated well cooked food as a way of preventing DD while only 56/300 (18.7%) of mothers reported exclusive breastfeeding as an important practice in preventing DD. 11/37 (29.7%) of children less than 2 months old were exclusively breastfed while 45/263 (17.1%) of children more than 2 months old were exclusively breastfed. 104/299 (34.8%) of the children in the sample had diarrhea in the last two weeks and 89 (88.1%) mothers whose children had diarrhea during this period reported giving fluids to their children. Out of this 89 mothers, 55 (61.8%) of them reported giving the same or more than usual amount of fluids during diarrhea episode. On treatments used during the DD episode, 30/104(28.9%) used ORS Sachets, 11/104(10.6%) used SSS, 7/104 (6.7%) used either porridge or tea. 37/104(35.6%) of mothers reported using an anti-diarrhea medicine or antibiotic. 63/100 (63%) sought outside advice or treatments for their sick children. 23/100 (23%) took the child to health care facility, 30/100 (30%) to the child to the CHW while the remaining 47/100 (47%) of the mothers sought advice or treatments from TBAs, Traditional healers, chemists, friends and others. Out of the mothers who sought treatment from the CHWs, 73% of them spent less than Kshs. 100 while 75% of those who sought treatment from elsewhere spent less than Kshs.100. On recovery from illness, 67% of the children taken to CHWs had fully recovered while 56% of those who were taken to other health care providers had fully recovered. The difference in recovery rate remains almost the same because CHWs do not provide any therapy for the management of diarrhea. They only provide ORS (which is not a medication) for diarrhea but just for supportive purposes.

50/104 (48.1%) of mothers whose children had diarrhea in the two weeks prior to the survey recognized continuing diarrhea without improvement as a serious sign of dehydration that requires referral a qualified health provider. 27/104 (26.0%) of mothers

reported drowsiness and or weakness; 16/104 (15.4%) mothers reported child refusing to eat and 15/104 (14.4%) mothers reported sunken eyes as important signs of diarrhea that require referral to a qualified health provider. Excessive thirst (dry mouth), loose skin, decreased urine, blood in stool and sunken fontanelle were all rated below 6.7% by the mothers.

On the question that specifically sought to know from the mothers what signs would make them seek treatment from the CHW, 175/300 (58.3%) mothers reported diarrhea continuing without improvement, 125/300 (41.7%) mothers reported drowsiness/weakness, 79/300 (26.3%) mothers reported sunken eyes, and 31/300 (10.3%) mothers reported loose skin. Bloody diarrhea, refusal to eat, sunken fontanelle, excessive thirst and decreased urine were all rated below 9.3% each.

In overall , out of the 104 children who had diarrhea two weeks prior to the survey, 52.9% (55/104) were given same or more of the breast milk during the DD episode, while 71.2% (74/104) of the children were given same or more fluids during the DD episode. 39/104 (37.5%) were put on Oral Rehydration Therapy while 26.9% (28/104) of the children were given same or more solids during the diarrhea episode.

RESPIRATORY ILLNESSES - ARI

The point prevalence rate for ARI for the last two weeks prior to the date of the survey was found to be 160/295 (54.2%) while the point prevalence rate for ALRI was found to be 55.6% (89/160). Overall 25.8% (23/89) of the children who had ALRI were taken to health care provider (hospital or CHW) within 24 hours. 56/89 (63%) of the children were taken to health care facility when they had ALRI. 22.5% (20/89) of the children were taken to CHW when they had ALRI. Out of the mothers who sought treatment from the CHWs when their children had ALRI, 50% of them did so within 24 hours, while those who sought treatment from other health care providers, 26% of them did so within 24 hours. The availability and increased accessibility to CHWs even at night in the community contributes to this. Out of the children who were taken to CHWs when they had ALRI, 59% had fully recovered while 43% of those who were taken to other health care providers had fully recovered. This significant difference in recovery rates indicates how effective Septrin is in managing ALRI related conditions than other medications being dispensed by the other health care providers.

On the question which sought to find out what actions a mother should take when a child has rapid or difficult breathing, 228/300 (76.0%) mothers reported taking the child to a health care facility; 120/300 (40.0%) mothers reported taking the child to a CHW while 31/300 (10.3%) mothers reported going to the chemist to buy drugs for the child. 45/300 (15%) mothers reported others different actions that they could take, while TBAs, traditional healers, and friends were all rated below 4.3%. 243/295 (82.4%) mothers reported that they would seek treatment for their children suffering from rapid or difficult breathing within 24 hours irrespective of whether the treatment is being sought from health care facility, CHW, TBA, traditional healers or friends. The results on knowledge of the mothers contradict the reported practice by the mothers when their children had ALRI.

IMMUNIZATION

Most mothers, 166/282 (58.9%), produced EPI cards for their children. From the EPI cards for mothers of children 12-23months old, DPT1 card coverage was 87.3% (55/63), DPT2

card coverage was 88.9% (56/63), DPT3 card coverage was 84.1% (53/63) while card coverage for Measles was found to be 58.7% (37/63). This represents a DPT1 - Measles drop out rate of (DPT1-Measles)/DPT1 * 100 =32.7%. Drop out rate for DPT1-DPT3/DPT1*100=3.6%

MATERNAL CARE

A total of 77/297 (25.9%) mothers had TT cards available, 61.3% of mothers had lost their cards while 12.8% of mothers never had one. 92.2% (71/77) mothers had received atleast one TT according to card while 98.7% (76/77) mothers received atleast one TT either by card or history. One hundred and eighty out of 269 (66.9%) mothers excluding those who were pregnant in the sample did not want have a child in the next two years. Of those mothers who who did not want to have a child, 15.8% (42/266) are using some family planning method to avoid and or postpone pregnancy. Among the most commonly used modern family planning method amongst the interviewed mothers were pill(19/33) 57.6% and injection(11/33) 33.3%. TL and Norplant were rated 6.1% and 3.0% respectively.

HIV/AIDS

Most mothers 254/300 (84.7%) reported sex as a way through which AIDS is transmitted, 90/300 (30%) reported skin piercing by unsterile instruments as another way through which AIDS is transmitted. On the question which sought to find out what the mothers were doing to prevent themselves from getting AIDS, 185/300 (61.7%) reported staying with one partner (Zero grazing), while 61/300 (20.3%) indicated use of condom as ways through which they prevent themselves from getting AIDS. 55/300(18.3%) of mothers reported avoiding skin piercing by unsterile instruments. Abstinence, avoiding unscreened blood, having reduced number of partners and STD treatment were all rated below 11.3% by the respondents.

COMMUNITY PARTICIPATION

One hundred and forty six mothers were involved in atleast one community groupings with most of them 89/132(67.4%) participating in Women's Groups activities. Church Groupings constituted 20.5% (27/132) of the total while PHC Groupings represented 8.3% (11/132).

STD AND SEX RELATED PRACTICES

The information on the questions from this section were collected through the Envelope System, whereby the literate and able to read and write respondents were given questionnaires already enclosed in envelopes. They were expected to read the questions, respond to them voluntarily and then seal the questionnaire in the envelope. For the respondents who were illiterate, the interviewers asked these questions directly after assuring the respondents on the high level of confidentiality being maintained. 21/294 (7.1%) of the mothers indicated that they had had STD within the last one year. When cross-tabulated with the duration within which treatment was sought, 10/19 (52.6%) sought treatment within one month while 4/19 (21.1%) sought treatment after a period of more than one month. 5/19 (26.3%) of those who reported having had STD either never sought treatment or did not know after how long they did seek treatment. 13/295 (4.4%) indicated that during the last one month, they had sex with someone other than their husbands or regular partner. Only 5/12 (41.7%) used some type of protection during intercourse with non-regular partner.

EDUCATION AND LITERACY

The survey results indicate that 219/300 (73.0%) of the mothers who participated in the survey were literate. 57.9% (173/299) of them spent between 5 to 8 years in school, 13.0% (39/299) spent between 1 to 4 years in school. 10.7% (32/299) spent between 9 to 12 years in school. Most mothers, 234/298 (78.5%), were living with their husbands as at the time of survey.

KEY NOTES ON THE SPECIFIC SURVEY RESULTS

1. From the survey results, more children were put on chloroquin 44/149 than Fansidar 15/149. Despite the project's efforts in actively promoting the use of Fansidar lack of IEC materials to reinforce could have contributed to this. Secondly, the MOH policy for the use of Fansidar as a front line in the management of malaria was just recently approved. Before this policy came into force, chloroquin was much more accessible through the MOH health care facilities. During the malaria episode, more children were taken to health care facilities as compared to those taken to the project's CHWs.
2. Compared to the baseline, there was a slight increase in the number of households with mosquito nets. The number of nets being treated (retreated) remains low due to lack of sensitization of the community members on the costs versus benefits of redipping. Another reason is that communities are not very comfortable in mass dipping of nets so promotion of single net dipping is being done.
3. There is generally an increase in knowledge amongst the mothers on the appropriate weaning practices. There is also a reduction in the inappropriate weaning practices. The knowledge on appropriate weaning practices could have increased if the CHWs and VHCs had IEC materials to back-up their promotion activities.
4. The use of Safe Water as a way of preventing DD has considerably increased amongst the mothers compared to baseline results. Though there was an increase in point prevalence of DD episode in the last two weeks prior to survey, it is known that the prevalence of DD is seasonally characterized. 30% of the children who had diarrhea were taken to CHW in the last two weeks as compared to only 16% of children who had malaria that sought treatment from the CHWs.
5. The achievements realised in the FP/HIV/AIDS/STI component of the project resulted from the referrals made by the project CHWs to Diocese of Maseno West, MOH and Maendeleo Ya Wanawake CBRHSPs. The project had not started active interventions on this particular area.
6. The increase in percentage of mothers who seek treatment for their children with cough and difficult breathing within 24 hours is the effect of the health messages which the CHWs are giving on pneumonia because before many mothers were not associating cough and difficult breathing with pneumonia.
7. Increase in number of households with mosquito nets is due to the advocacy for the use for their use as the most cost effective way of malaria prevention. It is important to note here that the increase in the number of households using mosquito nets is below what the target was. The same is realized in the indicators on the management of children during diarrhoeal episodes. The proportion of mothers reporting the use of ORT and the giving the same or more of solids and semi-solid foods during the diarrhoeal episodes dropped when compared to baseline findings. This is attributed to lack of IEC materials that could back-up the health talks given by the CHWs.

PRESENTATION OF BASELINE, FINAL KPC, SET TARGETS AND VARIANCE FROM TARGETS

ARI INDICATORS

INDICATORS	BASELINE %	FINAL KPC %	SET TARGETS %	PROJECT ACHIEVEMENT %
1. % of mothers who recognize rapid breathing as a sign of pneumonia in a child with cough or difficult breathing (Knowledge Indicator Question 32 …….CHW)	4	40	60	-20
1. % of mothers who recognize rapid breathing as a sign of pneumonia in a child with cough or difficult breathing (Knowledge Indicator Question 32…….Hospital)	86	76	60	16%
2. % of children who were taken to health care facility when they had ALRI	69	63		
3. % of mothers who seek medical Rx for children with rapid and difficult breathing within 24 hours of noticing it	23	26	63	3%
4. % of children who were taken to health care facility with rapid and difficult breathing, who had recovered fully		43		
5. % of children with ALRI who are taken to CHWs	0	23		23%
6. % of children with ALRI who were taken to CHWs within 24 hours		11		
7. % of children with ALRI who were taken to CHWs with rapid and difficult breathing, who had recovered fully.		50		

MALARIA INDICATORS

1. % of households with mosquito nets	19	27	40	8%
2. % of households with treated mosquito nets		25		
3. % of households with mosquito nets treated since December 1998		13		
4. % of mothers and children less than 2 months sleeping under a mosquito net	17	21	40	4%
5. % of women who took fansidar during their last pregnancy		40		
6. % of women who correctly took malaria chemoprophylaxis during their last pregnancy	1	15	40	14%

7. % of mothers who consulted a CHW when child had malaria		16		
8. % of mothers who seek appropriate Rx within 24 hours of their child's uncomplicated malaria from CHWs	5	8	75	11%
BREAST FEEDING , DIARRHEA				
1. % of infants less than 2 months exclusively breast feeding	1	30	15	29%
2. % of infants <24 months with diarrhea in the last two weeks who were given the same amount or more of breast milk	50	53	80	3%
3. % of infants<24 months with diarrhea who were given the same amount or more of fluids other than breast milk	53	71	80	18%
4. % of infants <24 months with diarrhea in the last two weeks who were treated with ORT	44	38	60	-6%
5. % of infants <24 months with diarrhea in the last two weeks who were given the same amount or more of solid or semi-solid foods	30	27	75	-3%
IMMUNIZATION				
1. % of children 12 -23months with DPT1	62	87	80	25%
2. % of children 12 – 23 months with DPT3	57	84	70	27%
3. % of children 12 – 23 months with measles immunization	41	59	70	18%
4. Drop out rate for DPT1- DPT3		<3.6		-20
5. % of women bearing a child receiving at least 1 dose of TT during the most recent pregnancy	86	99	90	13%
REPRODUCTIVE HEALTH				
1. % of women using modern contraceptives	14	16	31	2%
2. % Of population 15 –49 years of age who report not having had a sex partner other than a regular sex partner in the last 3 months.		4		
3. % of population 15 – 49 who report the use of a condom during the most recent sexual intercourse with a non-regular sex partner		42		

BASELINE SURVEY REPORT

FOR

17 NEW SUB-LOCATIONS

Conducted in June 1999

Prepared by:
Washington Omwomo

Monitoring and Evaluation Officer – CICSS

November 11, 1999.

INTRODUCTION:

Background Information:
The goal of the CARE Community Initiatives for Child Survival in Siaya (CICSS) Project is to reduce morbidity and mortality among children under 5 years of age in approximately 131 villages in the 17 new sub-locations; spread out in 3 Divisions of Boro, Uranga and Karemo, Siaya District in Nyanza Province, Kenya , with an estimated population of 76, 5361.The project's estimated beneficiaries in these 17 sub-locations will be 15,000 women 15-49 years; 15,000 children aged 11months to 59 months and 5000 infants.

The project's main intervention areas will be focussed on the three major causes of child mortality namely malaria, acute respiratory infections (ARI) and diarrheal diseases as well as vaccine preventable diseases. Added to the main 3 intervention areas is an integrated FP/HIV/AIDS/STI, during the life cycle of the project.

The Objectives of the Interventions will be:

Malaria:- Increased community knowledge and use of prevention and treatment measures for uncomplicated malaria for pregnant women and children under five within the home environment as well as early recognition and quick referral for more severe cases.

ARI:- Increased early recognition and quick referral of serious respiratory infection to appropriate health care facilities by mothers, other caretakers and community health workers (within 24 hours).

Diarrhoeal Diseases:- Increased community knowledge and use of diarrhoeal disease prevention and treatment measures for infants and children within the home environment coupled with early recognition and referral to appropriate health care facilities for complicated cases.

Vaccine Preventable Diseases (EPI):- Increased immunization coverage and reduced drop-out rates for children and pregnant women through community surveillance and promotion (IEC)

FP/HIV/AIDS/STI:- Increased community knowledge and use of methods and practices which are recommended for protection against STD/HIV/AIDS infections among sexually active individuals. Further to this, increased use of modern contraceptive methods among people aged 15 - 49 years.

OBJECTIVES OF THE SURVEY:

The objectives of this survey in overall were to assess mothers' KNOWLEDGE, PRACTICES and COVERAGE in the new 17 sub-locations where the project is to move to effective 1st October, 1999 with regard to:

Malaria:- Increased community knowledge and use of prevention and treatment measures for uncomplicated malaria for pregnant women and children under five within the home environment as well as early recognition and quick referral for more severe cases.

ARI:- Increased early recognition and quick referral of serious respiratory infection to appropriate health care facilities by mothers, other caretakers and community health workers (within 24 hours).

Diarrhoeal Diseases:- Increased community knowledge and use of diarrhoeal disease prevention and treatment measures for infants and children within the home environment coupled with early recognition and referral to appropriate health care facilities for complicated cases.

Vaccine Preventable Diseases (EPI):- Increased immunization coverage and reduced drop-out rates for children and pregnant women through community surveillance and promotion (IEC)

FP/HIV/AIDS/STI:- Increased community knowledge and use of methods and practices which are recommended for protection against STD/HIV/AIDS infections among sexually active individuals. Further to this, increased use of modern contraceptive methods among people aged 15 - 49 years. Much was not done in the area of FP/HIV/AIDS/STI apart from the mobilization, and selection of CBRHSPs/VHCs in 5 sub-locations, which were to act as pilot areas.

SCHEDULE OF ACTIVITIES:
- April 19th - 4th June 1999 - Questionnaire Development completed

- 31st May 1999 - Supervisors' training completed

- 3rdJune 1999 - Field testing of the Questionnaire done and final adjustments completed on 4th, June 1999.

- June 1st - 4th 1999 - Interviewers Training completed

- June 7th - 16th - Data Collection Completed (300 Interviews of 63 Questions in 30 Clusters)

- June 11th - 17th - Data entry in EPI INFO Statistical Software completed

- September 6th - 17th - Data Cleaning completed

- September 20th - 30th - Data Analysis completed

- October/November 1999 - Draft Report produced

METHODOLOGY:

BASELINE KPC SURVEY QUESTIONNAIRE
Baseline KPC Questionnaire was composed of 63 questions, which were distributed as follows:

* Q # 1 - 6 deal with demographic, social and marital status data
* Q # 7 - 8 deal with mother's occupation and caretakers
* Q# 9 - 12 deal with breastfeeding and other nutrition practices
* Q# 13 -26 deal with diarrhoeal disease control (Knowledge, Practice, Health seeking behaviour, treatment cost)
* Q# 27 - 33 deal with ARI
* Q# 34 - 38 deal with Child and Maternal Immunization
* Q# 39 - 42 deal with Family Planning
* Q# 43 - 53 deal malaria and treated mosquito nets
* Q# 54 - 56 deal with HIV/AIDS
* Q# 57 - 58 deal with Community Participation
* Q# 59 - 63 deal with STD

This Baseline KPC Questionnaire had some questions written in both English and Luo to maintain same understanding in terms of interpretation amongst the supervisors, interviewers and the respondents. Further clarity of the meanings of various questions were made during the training of both supervisors and interviewers and after its field testing. The objective in asking specific questions were exhaustively explained.

SAMPLE SIZE DETERMINATION:
The sampling methodology adopted for this survey is that of 30 cluster sampling according to the WHO/EPI model. For the determination of the sample sizes, the following formula was used: $n=z2\ pq/d2$
Where n= the sample size, z = statistical certainty chosen, p= coverage rate; level of knowledge, and q=1 - p, d= degree of precision.

The sample size was set up in the following way: the degree of precision (d) was set up at 0.1 and the p was set at 0.5. Thus, the resulting minimum sample size was 210, which was increased at 300 taking non-respondents into account. The number of clusters was 30 with a sample size equal to 300 resulting into 10 mothers with children less 2 years being drawn from each cluster for interviewing.

SAMPLE SELECTION:

The methodology used involved making a sampling frame of villages in all the sub-locations with their respective population figures. The cumulative population figures for the villages was then calculated to generate the total cumulative population. The total cumulative population was then divided by 30 clusters to get a Sampling Interval. A random number table was then generated in EPI INFO software. Using the 20 shillings currency note, a random number was picked which was less than the sampling interval. The village whose cumulative population equalled or was less than the random number was picked as the first cluster. The next clusters were than picked by adding the sampling interval to the random number and picking the village whose cumulative population figure was equal to or the resulting figure was within it.

The methodology demands that the supervisor locate the central point within the cluster for the interviewers. The central point in the cluster was determined by spinning a ballpen and the direction to be followed was determined by where the lid of the pen pointed. Depending on where the lid of the pen pointed, the first household was then identified where a mother with a child less than 2 years lived. Definition of a household was a house where people live, cook and eat from. The next households for interview were then determined based on the direction where the door faced.

The interviewers then interviewed 10 mothers from each cluster. In cases where the interviewers exhausted all households in a cluster without completing 10 interviews, they moved to the nearest village. At this point a pen had to be spinned to determine which direction to take.

METHOD OF DATA ANALYSIS:
The data entry and analysis were all performed within the project offices using the EPI INFO version 6.0. Analysis involved the generation of frequency tables of various variables coupled with cross-tabulation of two variables.

RAPID KPC SURVEY TRAINING:
There were 6 supervisors (3 senior district MOH officers and 2 Project Field Health Supervisors and 1 Project Community Health Extensionist). This team was beefed-up with two of the Core Team Members, who also ensured that all was well in the field including following the agreed upon procedures of the 30 cluster methodology. The enumerators were 16. This team was made-up of young men and women who demonstrated high experience in carrying out surveys. The project decided not to use its staff as a way of avoiding bias in data collection. The training duration for supervisors was 5 days while interviewers underwent a 4-day training session.

The training included the purpose of the survey, sample size, sampling methodology, starting point in a cluster, understanding of the meaning of each question and how to ask each question. Numerous one to one role play was used to familiarize the interviewer with the technique to be used in asking different types of questions. Both supervisors and interviewers conducted numerous role plays while during field testing of the questionnaire. Both the supervisors and the interviewers were taken through their roles They were asked in groups to brainstorm and come up with their responsibilities. These were then summarised with the trainers' list of responsibilities. The specific tasks for supervisors included:
* Selecting the starting point in each cluster so as to maintain the same procedure in all the clusters as is required in the WHO 30 Cluster Survey Methodology;
* Observing one interview each day per interviewer
* Checking (auditing) the completed questionnaires in each cluster location for accuracy and completeness and then to sign each when finished.

The team then left to field test the questionnaire where each interviewer completed 3 interviews while the supervisors completed one. From the field, first the supervisors took the interviewers that they assigned through the field experiences, particularly with regard to questionnaire administration. The next day in the morning session, participants were allowed to raise issues that came up in the field. Finally, all adjustments were on the questionnaire and all was set ready for the day survey was to start.

BASELINE SURVEY RESULTS FOR 17 NEW SUB-LOCATIONS:

AGE DISTRIBUTION:
During the training sessions, the interviewers were trained to establish the correct age of both the mother and the child. A child less than 30 days old was listed as 0 months old and when a child had reached 30 days but had not completed the second month of lifecycle, then it was listed as 1 month old. The mean age of the children surveyed was 9.9 months. 75% (225) of the children surveyed were aged 14 months and below. The majority of children surveyed with a 5-point difference in age were those between 0 to 5 months old (90/300).

The mean age of the mothers was 26.7 months with 75%ile of them aged 31 years and below. Interestingly, 13.7% (41) of the mothers surveyed were aged 35 and older which indicates a high risk group because of the upper age curve. The range in mothers' age was between 15 years and 48 years old. The majority of mothers surveyed with a 5-point difference in age were those between 20 and 25 (115/300).

EDUCATION AND LITERACY:
Majority of mothers surveyed were able to read and write 72.7% (218/300), with 13%(39/300) of them having attained highest educational level of between 9-12 years to above secondary. This result reflects a good base for the implementation of project interventions particularly so with the passing on of IEC messages for better knowledge and practices amongst the mothers. It is generally understood that where educational attainment is high, mortality rates are lower because of less exposure to infectious diseases and because of better health practices by households especially so for those related to hygiene and sanitation.

COMMUNITY PARTICIPATION:
On the question which sought to find out the active involvement of the respondents in any type of community groupings, 47.5%(142/299) of the respondents reported involvement in community groupings; with 56.3%(80/142) and 20.4% (29/142) of them involved in Women and Church groups respectively. The will have to target women and church groups with its IEC strategies for behaviour change since majority of the target groups are involved in these social groupings. Targeting mothers in these gatherings would result in increased local support for the project implementation hence a better project impact.

BREASTFEEDING AND NUTRITION:
Out of the 300 mothers surveyed, 90.6% (271/299) reported that they are still breast feeding their children. On the question which sought to find out what other fluids and foods that the child ate or drunk that day or the previous day, 79.9%(239/299) reported porridge; 59.9%(179/299) of mothers reported breast milk; while 35.6%(106/298) reported ugali, milk and water all unprompted. When prompted, mothers reported breast milk, water, fruits, dark green leafy vegetables, meat, peanuts and honey all in almost equal proportions.

Mothers weaning knowledge on the right time when they should start weaning their children was found to be 29.7%(89/300). Majority of mothers 50%(150/300) reported that weaning should start between the ages of one month and four months. 19.7%(59/300) reported that weaning should start at the age of less than one month.

DIARRHOEAL DISEASES:
The point prevalance for Diarrhoea was 38.3% (115/300) two weeks prior to the survey date.45.5% of the mothers reported giving same or more of the breast milk during the last diarrhoeal episode. 57.4% of the children with diarrhoea were put on same or more fluids during the episode, while 47% of the mothers reported using Oral Rehydration Therapy (ORT) for the management of dehydration at home. Only 13% of the children were given the same or more solids or semi-solids during the episode. While in general, about 50% of the mothers increased fluid intake by their children during the episode, replacement of lost micro-nutrients through solids and semi-solid foods remained low, hence the need to focus on this during the project lifecycle.

On the question which sought to establish the current practices in the prevention of diarrhoeal diseases, 64% (194/300) mothers reported usage of safe water and 30% (92/300) reported cooking of the child's food well.20% (60/300) of them reported doing nothing to prevent diarrhoeal diseases. Exclusive breast feeding upto 4 months, usage of latrine by all family members, washing of hands, having the child immunized, giving of a nutritious diet to the child and disposition of stool of a young child all were rated below 12%. The high usage of safe water as a means of preventing diarrhoeal diseases amongst children below 2 years by their mothers must be the effect of Siaya Health Water and Sanitation (SHEWAS) and other agencies operating within the project areas. Latrine usage which ought to have ranked high as a means of preventing diarrhoeal diseases was only rated at 2% (6/300).

On health seeking behaviour when a child had diarrhoeah, 58.9% (66/112) of the mothers reported having sought outside advice or treatment for their children. Out of this, 41.1% (46/112) sought treatment from the hospitals, 8.9% (10/112) sought help from the CHWs and 7.1% (8/112) sought help from traditional healers. On the signs that made the mothers to seek treatment, 50.4% (58/115) reported diarrhoea continuing without improvement as the sign that made them seek outside treatment. 28.7% (33/115) of mothers reported drowsiness/weakness (abnormally sleepy or difficult to wake) as what made them seek treatment. Another significant sign that made mothers seek outside treatment was the child refusing to feed 25.2% (29/115). Blood in stool, sunken fontanelle, loose skin, sunken eyes were all rated low by the respondents.

To a child who is restless with bloody diarrhoea lasting three days, 64.3% (193/300) mothers reported that they would take such a child to a health care facility ; while only 7% (21/300) mothers said that they seek health care from the Community Health Worker. About the same number of mothers 69/300 (23%) reported that they will give fluids and sugar-salt solution (SSS) to the child. The use of ORS Sachets and traditional medicine (Herbs) were rated at 14.3%(43/300) and 12.7%(38/300) respectively. 6.7%(20/300) mothers did not know what they could do to such a child. The results provide better starting points for the project, particularly so with the utilisation of CHW services in the community once they selected, trained and in practice. Important to note is that the results have scaled the CHWs and the Herbalists equally hence the need to come up with a strategy through the quality of health care being provided by herbalists could be improved towards the management of childhood illlnesses.

Among the signs that would cause a mother to seek treatment for diarrhoea from a Community Health Worker, diarrhoea continuing without improvement and drowsiness/weakness (abnormally sleepy or difficult to wake) were reported by 62% (186/300) and 53.7% (161/300) of the respondents respectively. Child refusing to feed and development of sunken eyes were reported by 27.3%(82/300) and 24%(72/300) of the respondents respectively. Excessive thirst/dry mouth, loose skin, decreased urine, sunken fontanelle, blood in stool were all rated separately below 12.7% (38/300).

To a child recovering from diarrhoea, 49.3% (148/300) mothers reported giving more foods/fluids than usual as one of important actions they will take. Increasing the intake of porridge enriched with high carolic foods such as oil and peanut butter as an important action to take to child recovering from diarrhoea was mentioned by 26% (78/300) mothers. 57/300 said that they would give less foods/fluids than usual to a child recovering from diarrhoea.

RESPIRATORY ILLNESSES:
The point prevalence rate two weeks prior to survey for cough or difficult breathing was found to be 49.7%(149/300); while that for rapid and difficult breathing was found to be 52.3% (78/149). On the question which sought to establish what actions mothers took when their children suffered rapid or difficult breathing, 30.2% (45/149) of mothers reported that they sought treatment at a health care facility. The number that were taken to either hospital or CHW within 24 hours was 23% (18/78). Out of those taken only to hospital, 33.3% (15/45) of them were taken within 24 hours, while those with rapid or difficult breathing taken to CHWs within 24 hours were 3.8% (3/78). 19/149 mothers sought treatment from the chemists/shopkeeper or drug vendors while mothers who sought treatment from either CHWs or Traditional healers were 7.7% (6/78) or 5.1% (4/78) respectively. On what actions a mother should take when a child has rapid or difficult breathing, taking a child to health care facility, community health worker or visiting a chemist/shopkeeper/drug vendor were reported by (92.7%) 278/300, (14.3%) 43/300 and (10.3%) 31/300 of the respondents respectively. There is some slight association between the knowledge and practice of the mothers in relation to management of a child with rapid or difficult breathing when one looks at what the mothers actually did during the most recent ALRI episode and what they know that should be done. While the number of children that were taken to either CHW or the hospital within 24 hours remained low, the survey results indicate that the knowledge of mothers on how soon they should seek treatment after first noticing that her child is suffering from rapid or difficult breathing stands at 81.3% (243/300). The possible reasons for this deviations could be one, distance to health care facilities versus the time of disease onset or the reluctance on the part of the mothers to utilize the services of the CHWs who are available all the time.

CHILD IMMUNIZATION:
DPT1 coverage was found to be 94% (63/67). DPT2 and DPT3 were 83.6% (56/67) and 77.6% (52/67) respectively. The Measles Coverage was found to be 59.7% (40/67). The drop out rate from DPT1 to DPT3 is 17.5% (11/63) and when computed from DPT1 to Measles is stands at 36.5% (23/63). It is important to note that these calculation were all based on the substrata of children with EPI cards which was 67/300 (22.3%).

MATERNAL CARE:
Out of the 300 mothers surveyed, 27% (81/300) had a TT card available. The proportion of them who had received at least 1 TT as per TT card was found to be 85.2% (69/81) while those who had received at least 1 TT by either card or history was found to be 96.3% (78/81). Out of the 281 mothers, 17.8% (50/281) reported use of a modern contraceptive method; and 18.3% (51/279) of them wanted to have a child in the next two years. 6.4% (19/299) of the mothers were pregnant as at the time of the survey.

HIV/AIDS:
The survey methodology used was Envelope System whereby this section of the questionnaire put in an envelope and literate mothers asked to complete it while the enumerator was waiting. For the illiterate mothers, the enumerators sought their consent to respond the questions by first explaining that questions touch on ones personal sex behaviour. On this understanding, enumerators then directly asked respondents these questions. The overall assessment is that few mothers genuinely responded to questions in this section. The percentage of mothers who reported having had sex with anyone other than their regular partner with a protection was found to be 40% (4/10) while those mothers who had sex with anyone without a protection was found to be 60% (6/10).

MALARIA CONTROL AND PREVENTION:
The proportion of mothers who took fansidar prophylaxis during their recent pregnancy was found to be 14.3% (7/49) two weeks prior to the survey, the point prevalence of malaria was found to be 56.3% (169/300). The proportion of children who were taken to the CHWs when they had malaria was found to be 5.9% (10/169), while of this number those who were taken to CHW within 24 hours when they had malaria was 3.0% (5/169). On the same question which sought to find out what actions the mothers took when their children had malaria, 36.1% (61/169) mothers reported that they gave out chloroquin and 52.5% (32/61) did so within 24 hours. 52.1% (88/169) mothers reported that they took their children to the hospital and 31% (26/84) did so within 24 hours. The use of fansidar was lowly rated. Use was reported only by 5/169 mothers. The same holds for the use of traditional medicine 3/169. Out of the total 169 children who had malaria, 69.2% (117/169) of mothers spent between Kshs.0 and Kshs.99. By the time of survey, 105/169 children had fully recovered from the illness.

Sixty-one households out of 300 (20.3%) had mosquito nets, while out of this 61/300 households, 14.8%(9/61) had nets which had at least been treated since December 1998. The number of households with treated nets but not necessarily since December 1998 was found to be 15/61 (24.6%). The proportion of mothers and children less 2 months old who sleep under mosquito nets was found to be 16.7% (50/300) while those sleeping under treated mosquito nets was found to be 2.0%.

FREQUENCY OF ALL VARIABLES IN THE KPC SURVEY FOR THE 17 NEW SUB-LOCATIONS:

LITERATE | Freq Percent Cum.
---------+-----------------------
+ | 218 72.7% 72.7%
- | 82 27.3% 100.0%
---------+-----------------------
Total | 300 100.0%

EDLEVEL | Freq Percent Cum.
--------+-----------------------
1 | 56 18.7% 18.7%
2 | 37 12.3% 31.0%
3 | 168 56.0% 87.0%
4 | 36 12.0% 99.0%
5 | 3 1.0% 100.0%
--------+-----------------------
Total | 300 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
300	793	2.643	0.906	0.952	0.055

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	2.000	3.000	3.000	5.000	3.000

Student's "t", testing whether mean differs from zero.
T statistic = 48.105, df = 299 p-value = 0.00000

RELIGION | Freq Percent Cum.
---------+-----------------------
1 | 86 35.5% 35.5%
2 | 133 55.0% 90.5%
3 | 23 9.5% 100.0%
---------+-----------------------
Total | 242 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
242	421	1.740	0.384	0.620	0.040

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	2.000	3.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 43.660, df = 241 p-value = 0.00000

MARRIED | Freq Percent Cum.
--------+-----------------------
+ | 268 89.3% 89.3%
- | 32 10.7% 100.0%
--------+-----------------------
Total | 300 100.0%

NOTHING7 | Freq Percent Cum.
---------+-----------------------
+ | 96 100.0% 100.0%
---------+-----------------------
Total | 96 100.0%

HANDICRAFT | Freq Percent Cum.
-----------+-----------------------
+ | 10 100.0% 100.0%
-----------+-----------------------
Total | 10 100.0%

FARMLABOR	Freq Percent Cum.
+	85 100.0% 100.0%
Total	85 100.0%

SELLNOFOOD	Freq Percent Cum.
+	40 100.0% 100.0%
Total	40 100.0%

SELLFOOD	Freq Percent Cum.
+	94 100.0% 100.0%
Total	94 100.0%

SERVANT	Freq Percent Cum.
+	3 100.0% 100.0%
Total	3 100.0%

SHOPKEEPER	Freq Percent Cum.
+	16 100.0% 100.0%
Total	16 100.0%

SALARIED	Freq Percent Cum.
+	7 100.0% 100.0%
Total	7 100.0%

TAKESCHILD	Freq Percent Cum.
+	106 100.0% 100.0%
Total	106 100.0%

HUSBAND	Freq Percent Cum.
+	18 100.0% 100.0%
Total	18 100.0%

SIBLINGS	Freq Percent Cum.
+	165 100.0% 100.0%
Total	165 100.0%

GRANDMOM	Freq Percent Cum.
+	59 100.0% 100.0%
Total	59 100.0%

FAMILY8	Freq Percent Cum.
+	52 100.0% 100.0%
Total	52 100.0%

FRIENDS8 | Freq Percent Cum.
---------+-----------------------
+ | 8 100.0% 100.0%
---------+-----------------------
Total | 8 100.0%

MAID | Freq Percent Cum.
------+-----------------------
+ | 11 100.0% 100.0%
------+-----------------------
Total | 11 100.0%

BREASTFED | Freq Percent Cum.
----------+-----------------------
+ | 271 90.6% 90.6%
- | 28 9.4% 100.0%
----------+-----------------------
Total | 299 100.0%

BREASTMILK | Freq Percent Cum.
-----------+-----------------------
1 | 179 59.9% 59.9%
2 | 88 29.4% 89.3%
9 | 32 10.7% 100.0%
-----------+-----------------------
Total | 299 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
299	643	2.151	5.840	2.417	0.140

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	2.000	9.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 15.388, df = 298 p-value = 0.00000

WATER | Freq Percent Cum.
------+-----------------------
1 | 106 35.6% 35.6%
2 | 140 47.0% 82.6%
9 | 52 17.4% 100.0%
------+-----------------------
Total | 298 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
298	854	2.866	8.184	2.861	0.166

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	2.000	9.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 17.293, df = 297 p-value = 0.00000

GLUCOSE | Freq Percent Cum.
--------+-----------------------
1 | 5 1.7% 1.7%
2 | 24 8.0% 9.7%
9 | 270 90.3% 100.0%
--------+-----------------------
Total | 299 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
299	2483	8.304	4.535	2.129	0.123

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	9.000	9.000	9.000	9.000	9.000

Student's "t", testing whether mean differs from zero.
T statistic = 67.433, df = 298 p-value = 0.00000

MILK | Freq Percent Cum.
---|---|---
1 | 106 35.5% 35.5%
2 | 54 18.1% 53.5%
9 | 139 46.5% 100.0%
Total | 299 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
299	1465	4.900	14.775	3.844	0.222

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	9.000	9.000	9.000

Student's "t", testing whether mean differs from zero.
T statistic = 22.041, df = 298 p-value = 0.00000

PORRIDGE10 | Freq Percent Cum.
---|---|---
1 | 239 79.9% 79.9%
2 | 20 6.7% 86.6%
9 | 40 13.4% 100.0%
Total | 299 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
299	639	2.137	7.360	2.713	0.157

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	1.000	9.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 13.621, df = 298 p-value = -0.00000

FRUIT | Freq Percent Cum.
---|---|---
1 | 23 7.7% 7.7%
2 | 104 34.8% 42.5%
9 | 172 57.5% 100.0%
Total | 299 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
299	1779	5.950	12.706	3.564	0.206

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	2.000	9.000	9.000	9.000	9.000

Student's "t", testing whether mean differs from zero.
T statistic = 28.863, df = 298 p-value = 0.00000

LEAFGREEN | Freq Percent Cum.
---|---|---
1 | 18 6.0% 6.0%
2 | 93 31.1% 37.1%
9 | 188 62.9% 100.0%

Total | 299 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
299	1896	6.341	12.064	3.473	0.201

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	2.000	9.000	9.000	9.000	9.000

Student's "t", testing whether mean differs from zero.
T statistic = 31.568, df = 298 p-value = 0.00000

MEAT | Freq Percent Cum.
---+---
1 | 28 9.4% 9.4%
2 | 69 23.1% 32.4%
9 | 202 67.6% 100.0%
---+---
Total | 299 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
299	1984	6.635	11.749	3.428	0.198

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	2.000	9.000	9.000	9.000	9.000

Student's "t", testing whether mean differs from zero.
T statistic = 33.474, df = 298 p-value = -0.00000

PEANUTS | Freq Percent Cum.
---+---
1 | 58 19.4% 19.4%
2 | 91 30.4% 49.8%
9 | 150 50.2% 100.0%
---+---
Total | 299 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
299	1590	5.318	13.815	3.717	0.215

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	2.000	9.000	9.000	9.000	9.000

Student's "t", testing whether mean differs from zero.
T statistic = 24.739, df = 298 p-value = 0.00000

HONEY | Freq Percent Cum.
---+---
1 | 2 0.7% 0.7%
2 | 65 21.7% 22.4%
9 | 232 77.6% 100.0%
---+---
Total | 299 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
299	2220	7.425	8.628	2.937	0.170

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	9.000	9.000	9.000	9.000	9.000

Student's "t", testing whether mean differs from zero.
T statistic = 43.709, df = 298 p-value = 0.00000

OIL | Freq Percent Cum.

```
------+-----------------------
1     |     2    0.7%     0.7%
2     |    43   14.4%    15.1%
9     |   254   84.9%   100.0%
------+-----------------------
Total |   299  100.0%


      Total        Sum       Mean   Variance    Std Dev    Std Err
        299       2374      7.940      6.372      2.524      0.146

    Minimum     25%ile     Median     75%ile    Maximum       Mode
      1.000      9.000      9.000      9.000      9.000      9.000

Student's "t", testing whether mean differs from zero.
T statistic = 54.388,  df =   298   p-value = -0.00000



UGALI |  Freq  Percent    Cum.
------+-----------------------
1     |   105   35.1%    35.1%
2     |    65   21.7%    56.9%
9     |   129   43.1%   100.0%
------+-----------------------
Total |   299  100.0%


      Total        Sum       Mean   Variance    Std Dev    Std Err
        299       1396      4.669     14.417      3.797      0.220

    Minimum     25%ile     Median     75%ile    Maximum       Mode
      1.000      1.000      2.000      9.000      9.000      9.000

Student's "t", testing whether mean differs from zero.
T statistic = 21.263,  df =   298   p-value = 0.00000



WEANING |  Freq  Percent    Cum.
--------+-----------------------
1       |    59   19.7%    19.7%
2       |   150   50.0%    69.7%
3       |    89   29.7%    99.3%
4       |     2    0.7%   100.0%
--------+-----------------------
  Total |   300  100.0%


      Total        Sum       Mean   Variance    Std Dev    Std Err
        300        634      2.113      0.509      0.713      0.041

    Minimum     25%ile     Median     75%ile    Maximum       Mode
      1.000      2.000      2.000      3.000      4.000      2.000

Student's "t", testing whether mean differs from zero.
T statistic = 51.314,  df =   299   p-value = 0.00000



SAFEWATER |  Freq  Percent    Cum.
----------+-----------------------
+         |   194  100.0%   100.0%
----------+-----------------------
    Total |   194  100.0%


BREASTONLY |  Freq  Percent    Cum.
-----------+-----------------------
+          |     5  100.0%   100.0%
-----------+-----------------------
     Total |     5  100.0%


COOKFOOD |  Freq  Percent    Cum.
```

```
---------+-----------------------
+        |    92  100.0%   100.0%
---------+-----------------------
  Total |    92  100.0%


GOODFOOD |  Freq  Percent   Cum.
---------+-----------------------
+        |    10  100.0%   100.0%
---------+-----------------------
  Total |    10  100.0%


USELATRINE |  Freq  Percent   Cum.
-----------+-----------------------
+          |     6  100.0%   100.0%
-----------+-----------------------
    Total |     6  100.0%


BYTHROWING |  Freq  Percent   Cum.
-----------+-----------------------
+          |    11  100.0%   100.0%
-----------+-----------------------
    Total |    11  100.0%


WASHHANDS |  Freq  Percent   Cum.
----------+-----------------------
+         |    36  100.0%   100.0%
----------+-----------------------
   Total |    36  100.0%


IMMUNIZED |  Freq  Percent   Cum.
----------+-----------------------
+         |     6  100.0%   100.0%
----------+-----------------------
   Total |     6  100.0%


NOTHING12 |  Freq  Percent   Cum.
----------+-----------------------
+         |    60  100.0%   100.0%
----------+-----------------------
   Total |    60  100.0%


DIARRHEA |  Freq  Percent   Cum.
---------+-----------------------
1        |   115   38.3%    38.3%
2        |   185   61.7%   100.0%
---------+-----------------------
  Total |   300  100.0%


     Total       Sum      Mean   Variance    Std Dev    Std Err
       300       485     1.617      0.237      0.487      0.028

   Minimum     25%ile     Median     75%ile    Maximum       Mode
     1.000      1.000      2.000      2.000      2.000      2.000

Student's "t", testing whether mean differs from zero.
T statistic = 57.497,  df =   299   p-value = 0.00000



GAVEBREAST |  Freq  Percent   Cum.
-----------+-----------------------
1          |    91   79.8%    79.8%
2          |    23   20.2%   100.0%
-----------+-----------------------
    Total |   114  100.0%
```

Total	Sum	Mean	Variance	Std Dev	Std Err
114	137	1.202	0.162	0.403	0.038

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	1.000	2.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 31.833, df = 113 p-value = 0.00000

HOWMUCH	Freq	Percent	Cum.
1	13	13.8%	13.8%
2	39	41.5%	55.3%
3	42	44.7%	100.0%
Total	94	100.0%	

Total	Sum	Mean	Variance	Std Dev	Std Err
94	217	2.309	0.495	0.704	0.073

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	2.000	2.000	3.000	3.000	3.000

Student's "t", testing whether mean differs from zero.
T statistic = 31.806, df = 93 p-value = 0.00000

GAVEFLUIDS	Freq	Percent	Cum.
1	99	88.4%	88.4%
2	13	11.6%	100.0%
Total	112	100.0%	

Total	Sum	Mean	Variance	Std Dev	Std Err
112	125	1.116	0.104	0.322	0.030

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	1.000	2.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 36.710, df = 111 p-value = 0.00000

WATER01	Freq	Percent	Cum.
+	61	100.0%	100.0%
Total	61	100.0%	

WATER21	Freq	Percent	Cum.
1	27	44.3%	44.3%
2	16	26.2%	70.5%
3	18	29.5%	100.0%
Total	61	100.0%	

Total	Sum	Mean	Variance	Std Dev	Std Err
61	113	1.852	0.728	0.853	0.109

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	3.000	3.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 16.958, df = 60 p-value = 0.00000

PORRIDGE | Freq Percent Cum.
---------+-----------------------
+ | 80 100.0% 100.0%
---------+-----------------------
Total | 80 100.0%

PORRIDGE1 | Freq Percent Cum.
----------+-----------------------
1 | 7 8.8% 8.8%
2 | 25 31.3% 40.0%
3 | 48 60.0% 100.0%
----------+-----------------------
Total | 80 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
80	201	2.513	0.430	0.656	0.073

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	2.000	3.000	3.000	3.000	3.000

Student's "t", testing whether mean differs from zero.
T statistic = 34.261, df = 79 p-value = 0.00000

SOUP | Freq Percent Cum.
------+-----------------------
+ | 2 100.0% 100.0%
------+-----------------------
Total | 2 100.0%

SOUP1 | Freq Percent Cum.
------+-----------------------
1 | 1 50.0% 50.0%
2 | 1 50.0% 100.0%
------+-----------------------
Total | 2 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
2	3	1.500	0.500	0.707	0.500

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.500	2.000	2.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 3.000, df = 1 p-value = 0.20483

TEA | Freq Percent Cum.
------+-----------------------
+ | 10 100.0% 100.0%
------+-----------------------
Total | 10 100.0%

TEA1 | Freq Percent Cum.
------+-----------------------
2 | 5 50.0% 50.0%
3 | 5 50.0% 100.0%
------+-----------------------
Total | 10 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
10	25	2.500	0.278	0.527	0.167

Minimum	25%ile	Median	75%ile	Maximum	Mode
2.000	2.000	2.500	3.000	3.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 15.000, df = 9 p-value = 0.00000

MILK01 | Freq Percent Cum.
-------+-----------------------
+ | 43 100.0% 100.0%
-------+-----------------------
Total | 43 100.0%

MILK21 | Freq Percent Cum.
-------+-----------------------
1 | 11 25.6% 25.6%
2 | 11 25.6% 51.2%
3 | 21 48.8% 100.0%
-------+-----------------------
Total | 43 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
43	96	2.233	0.707	0.841	0.128

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	3.000	3.000	3.000

Student's "t", testing whether mean differs from zero.
T statistic = 17.417, df = 42 p-value = 0.00000

FRUITJU | Freq Percent Cum.
--------+-----------------------
+ | 10 100.0% 100.0%
--------+-----------------------
Total | 10 100.0%

FRUITJU1 | Freq Percent Cum.
---------+-----------------------
1 | 4 40.0% 40.0%
2 | 2 20.0% 60.0%
3 | 4 40.0% 100.0%
---------+-----------------------
Total | 10 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
10	20	2.000	0.889	0.943	0.298

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	3.000	3.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 6.708, df = 9 p-value = 0.00009

SOLIDSSEMI | Freq Percent Cum.
-----------+-----------------------
1 | 52 45.2% 45.2%
2 | 63 54.8% 100.0%
-----------+-----------------------
Total | 115 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
115	178	1.548	0.250	0.500	0.047

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	2.000	2.000	2.000

Student's "t", testing whether mean differs from zero.

T statistic = 33.205, df =   114   p-value = -0.00000

HOWMUCH01 | Freq Percent   Cum.
---------+-----------------------
1 | 2   3.8%   3.8%
2 | 13 25.0%   28.8%
3 | 37 71.2% 100.0%
---------+-----------------------
   Total | 52 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
52	139	2.673	0.303	0.550	0.076

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	2.000	3.000	3.000	3.000	3.000

Student's "t", testing whether mean differs from zero.
T statistic = 35.030, df =   51   p-value = 0.00000

NOTHING18 | Freq Percent   Cum.
----------+-----------------------
+ | 5 100.0% 100.0%
----------+-----------------------
   Total | 5 100.0%

ORSSACHET | Freq Percent   Cum.
----------+-----------------------
+ | 41 100.0% 100.0%
----------+-----------------------
   Total | 41 100.0%

SSS | Freq Percent   Cum.
------+-----------------------
+ | 19 100.0% 100.0%
------+-----------------------
Total | 19 100.0%

PORRIDGE18 | Freq Percent   Cum.
-----------+-----------------------
+ | 6 100.0% 100.0%
-----------+-----------------------
    Total | 6 100.0%

TEAS | Freq Percent   Cum.
------+-----------------------
+ | 9 100.0% 100.0%
------+-----------------------
Total | 9 100.0%

CDDMEDS | Freq Percent   Cum.
--------+-----------------------
+ | 52 100.0% 100.0%
--------+-----------------------
  Total | 52 100.0%

GAVEOUT | Freq Percent   Cum.
--------+-----------------------
1 | 66   58.9%   58.9%
2 | 46   41.1% 100.0%
--------+-----------------------
  Total | 112 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err

112	158	1.411	0.244	0.494	0.047

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	2.000	2.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 30.211, df = 111 p-value = 0.00000

GAVEHOSP20 | Freq Percent Cum.
---|---|---|---|
+ | 46 100.0% 100.0%
---|---|---|---|
Total | 46 100.0%

CHEMIST20 | Freq Percent Cum.
---|---|---|---|
+ | 5 100.0% 100.0%
---|---|---|---|
Total | 5 100.0%

CHW20 | Freq Percent Cum.
---|---|---|---|
+ | 10 100.0% 100.0%
---|---|---|---|
Total | 10 100.0%

HEALER20 | Freq Percent Cum.
---|---|---|---|
+ | 8 100.0% 100.0%
---|---|---|---|
Total | 8 100.0%

FRIENDS20 | Freq Percent Cum.
---|---|---|---|
+ | 14 100.0% 100.0%
---|---|---|---|
Total | 14 100.0%

THIRSTY21 | Freq Percent Cum.
---|---|---|---|
+ | 4 100.0% 100.0%
---|---|---|---|
Total | 4 100.0%

SUNKEYES21 | Freq Percent Cum.
---|---|---|---|
+ | 10 100.0% 100.0%
---|---|---|---|
Total | 10 100.0%

SKIN21 | Freq Percent Cum.
---|---|---|---|
+ | 8 100.0% 100.0%
---|---|---|---|
Total | 8 100.0%

LOWFONT21 | Freq Percent Cum.
---|---|---|---|
+ | 2 100.0% 100.0%
---|---|---|---|
Total | 2 100.0%

BLOODSTOOL | Freq Percent Cum.
---|---|---|---|

```
+         |     1  100.0%   100.0%
------------+-----------------------
    Total |     1  100.0%


NOTEATING |  Freq  Percent   Cum.
----------+-----------------------
+         |    29  100.0%   100.0%
----------+-----------------------
   Total |    29  100.0%


WEAKNESS21 |  Freq  Percent   Cum.
-----------+-----------------------
+         |    33  100.0%   100.0%
-----------+-----------------------
    Total |    33  100.0%


CDDPERSIST |  Freq  Percent   Cum.
-----------+-----------------------
+         |    58  100.0%   100.0%
-----------+-----------------------
    Total |    58  100.0%


DDCOST |  Freq  Percent   Cum.
-------+-----------------------
1      |    38   55.1%    55.1%
2      |    17   24.6%    79.7%
3      |     7   10.1%    89.9%
4      |     5    7.2%    97.1%
5      |     1    1.4%    98.6%
9      |     1    1.4%   100.0%
-------+-----------------------
 Total |    69  100.0%


      Total       Sum      Mean   Variance    Std Dev    Std Err
         69       127     1.841      1.783      1.335      0.161

    Minimum     25%ile     Median     75%ile    Maximum       Mode
      1.000      1.000      1.000      2.000      9.000      1.000

Student's "t", testing whether mean differs from zero.
T statistic = 11.450,  df =    68   p-value = -0.00000


DDRECOVER |  Freq  Percent   Cum.
----------+-----------------------
1         |    35   51.5%    51.5%
2         |    30   44.1%    95.6%
3         |     3    4.4%   100.0%
----------+-----------------------
   Total |    68  100.0%


      Total       Sum      Mean   Variance    Std Dev    Std Err
         68       104     1.529      0.342      0.585      0.071

    Minimum     25%ile     Median     75%ile    Maximum       Mode
      1.000      1.000      1.000      2.000      3.000      1.000

Student's "t", testing whether mean differs from zero.
T statistic = 21.553,  df =    67   p-value = 0.00000


GIVEBREAST |  Freq  Percent   Cum.
-----------+-----------------------
+         |    21  100.0%   100.0%
-----------+-----------------------
    Total |    21  100.0%
```

GIVEBREAS1 | Freq Percent Cum.
---
1 | 11 52.4% 52.4%
2 | 8 38.1% 90.5%
3 | 2 9.5% 100.0%

Total | 21 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
21	33	1.571	0.457	0.676	0.148

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	2.000	3.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 10.651, df = 20 p-value = 0.00000

GIVEFLUIDS | Freq Percent Cum.

+ | 68 100.0% 100.0%

Total | 68 100.0%

GIVEFLUID1 | Freq Percent Cum.
---
1 | 42 62.7% 62.7%
2 | 12 17.9% 80.6%
3 | 13 19.4% 100.0%

Total | 67 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
67	105	1.567	0.643	0.802	0.098

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	2.000	3.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 15.995, df = 66 p-value = 0.00000

GIVEPORRIG | Freq Percent Cum.

+ | 31 100.0% 100.0%

Total | 31 100.0%

GIVEPORRI1 | Freq Percent Cum.
---
1 | 10 32.3% 32.3%
2 | 12 38.7% 71.0%
3 | 9 29.0% 100.0%

Total | 31 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
31	61	1.968	0.632	0.795	0.143

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	3.000	3.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 13.778, df = 30 p-value = 0.00000

GIVEFOODS	Freq Percent Cum.
\+	10 100.0% 100.0%
Total	10 100.0%

GIVEFOODS1	Freq Percent Cum.
1	3 33.3% 33.3%
3	6 66.7% 100.0%
Total	9 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
9	21	2.333	1.000	1.000	0.333

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	3.000	3.000	3.000	3.000

Student's "t", testing whether mean differs from zero.
T statistic = 7.000, df = 8 p-value = 0.00011

GIVESACHET	Freq Percent Cum.
\+	43 100.0% 100.0%
Total	43 100.0%

GIVESACHE1	Freq Percent Cum.
1	34 85.0% 85.0%
2	2 5.0% 90.0%
3	4 10.0% 100.0%
Total	40 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
40	50	1.250	0.397	0.630	0.100

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	1.000	3.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 12.540, df = 39 p-value = 0.00000

GIVESSS	Freq Percent Cum.
\+	69 100.0% 100.0%
Total	69 100.0%

GIVESSS1	Freq Percent Cum.
1	37 53.6% 53.6%
2	17 24.6% 78.3%
3	14 20.3% 98.6%
4	1 1.4% 100.0%
Total	69 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
69	117	1.696	0.715	0.845	0.102

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	2.000	4.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 16.659, df = 68 p-value = 0.00000

GIVEHERBS	Freq Percent Cum.
+	38 100.0% 100.0%
Total	38 100.0%

GIVECDDMED	Freq Percent Cum.
+	32 100.0% 100.0%
Total	32 100.0%

TAKEHOSP	Freq Percent Cum.
+	193 100.0% 100.0%
Total	193 100.0%

NOFLUIDS	Freq Percent Cum.
+	5 100.0% 100.0%
Total	5 100.0%

TAKECHW	Freq Percent Cum.
+	21 100.0% 100.0%
Total	21 100.0%

TAKEPHARM	Freq Percent Cum.
+	3 100.0% 100.0%
Total	3 100.0%

UNKNOWN24	Freq Percent Cum.
+	20 100.0% 100.0%
Total	20 100.0%

UNKNOWN25	Freq Percent Cum.
+	19 100.0% 100.0%
Total	19 100.0%

THIRSTY25	Freq Percent Cum.
+	18 100.0% 100.0%
Total	18 100.0%

SUNKEYES25	Freq Percent Cum.
+	72 100.0% 100.0%
Total	72 100.0%

SKIN25 | Freq Percent Cum.
---+---
+ | 38 100.0% 100.0%
---+---
Total | 38 100.0%

LOWPEE25 | Freq Percent Cum.
---+---
+ | 2 100.0% 100.0%
---+---
Total | 2 100.0%

LOWFONT25 | Freq Percent Cum.
---+---
+ | 15 100.0% 100.0%
---+---
Total | 15 100.0%

BLOODYPOOP | Freq Percent Cum.
---+---
+ | 32 100.0% 100.0%
---+---
Total | 32 100.0%

NOTEATIN01 | Freq Percent Cum.
---+---
+ | 82 100.0% 100.0%
---+---
Total | 82 100.0%

WEAKNESS | Freq Percent Cum.
---+---
+ | 161 100.0% 100.0%
---+---
Total | 161 100.0%

CDDSTAYS | Freq Percent Cum.
---+---
+ | 186 100.0% 100.0%
---+---
Total | 186 100.0%

UNKNOWN26 | Freq Percent Cum.
---+---
+ | 27 100.0% 100.0%
---+---
Total | 27 100.0%

MOREFOODS | Freq Percent Cum.
---+---
+ | 148 100.0% 100.0%
---+---
Total | 148 100.0%

RICHPORRIG | Freq Percent Cum.
---+---
+ | 78 100.0% 100.0%
---+---
Total | 78 100.0%

LESSFOODS | Freq Percent Cum.
---+---
+ | 57 100.0% 100.0%
---+---

Total | 57 100.0%

ARI | Freq Percent Cum.
------+-----------------------
1 | 149 49.7% 49.7%
2 | 150 50.0% 99.7%
3 | 1 0.3% 100.0%
------+-----------------------
Total | 300 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
300	452	1.507	0.257	0.507	0.029

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	2.000	3.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 51.429, df = 299 p-value = 0.00000

ALRI | Freq Percent Cum.
------+-----------------------
1 | 78 52.3% 52.3%
2 | 70 47.0% 99.3%
3 | 1 0.7% 100.0%
------+-----------------------
Total | 149 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
149	221	1.483	0.265	0.515	0.042

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	2.000	3.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 35.176, df = 148 p-value = 0.00000

TAKEHOSP29 | Freq Percent Cum.
-----------+-----------------------
+ | 45 100.0% 100.0%
-----------+-----------------------
Total | 45 100.0%

TAKEHOSP30 | Freq Percent Cum.
-----------+-----------------------
1 | 15 33.3% 33.3%
2 | 30 66.7% 100.0%
-----------+-----------------------
Total | 45 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
45	75	1.667	0.227	0.477	0.071

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	2.000	2.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 23.452, df = 44 p-value = 0.00000

CHW29 | Freq Percent Cum.
------+-----------------------
+ | 6 100.0% 100.0%
------+-----------------------
Total | 6 100.0%

CHW30 | Freq Percent Cum.
------+-----------------------
1 | 3 50.0% 50.0%
2 | 3 50.0% 100.0%
------+-----------------------
Total | 6 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
6	9	1.500	0.300	0.548	0.224

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.500	2.000	2.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 6.708, df = 5 p-value = 0.00111

HEALER29 | Freq Percent Cum.
---------+-----------------------
+ | 4 100.0% 100.0%
---------+-----------------------
Total | 4 100.0%

HEALER30 | Freq Percent Cum.
---------+-----------------------
1 | 3 75.0% 75.0%
2 | 1 25.0% 100.0%
---------+-----------------------
Total | 4 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
4	5	1.250	0.250	0.500	0.250

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	1.500	2.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 5.000, df = 3 p-value = 0.01539

CHEMIST29 | Freq Percent Cum.
----------+-----------------------
+ | 19 100.0% 100.0%
----------+-----------------------
Total | 19 100.0%

FRIENDS29 | Freq Percent Cum.
----------+-----------------------
+ | 2 100.0% 100.0%
----------+-----------------------
Total | 2 100.0%

NOTREATARI | Freq Percent Cum.
-----------+-----------------------
+ | 7 100.0% 100.0%
-----------+-----------------------
Total | 7 100.0%

ARICOST | Freq Percent Cum.
--------+-----------------------
1 | 44 56.4% 56.4%
2 | 15 19.2% 75.6%
3 | 6 7.7% 83.3%
4 | 4 5.1% 88.5%
5 | 3 3.8% 92.3%
9 | 6 7.7% 100.0%

--------+-----------------------
 Total | 78 100.0%

     Total   Sum   Mean   Variance   Std Dev   Std Err
        78   177   2.269   4.953   2.225   0.252

   Minimum   25%ile   Median   75%ile   Maximum   Mode
     1.000   1.000   1.000   2.000   9.000   1.000

Student's "t", testing whether mean differs from zero.
T statistic = 9.006, df =   77   p-value = 0.00000

ARIRECOVER | Freq Percent   Cum.
-----------+-----------------------
1 | 40   52.6%   52.6%
2 | 34   44.7%   97.4%
3 | 2   2.6% 100.0%
-----------+-----------------------
    Total | 76 100.0%

     Total   Sum   Mean   Variance   Std Dev   Std Err
        76   114   1.500   0.307   0.554   0.064

   Minimum   25%ile   Median   75%ile   Maximum   Mode
     1.000   1.000   1.000   2.000   3.000   1.000

Student's "t", testing whether mean differs from zero.
T statistic = 23.614, df =   75   p-value = 0.00000

GOHOSPITAL | Freq Percent   Cum.
-----------+-----------------------
+ | 278 100.0% 100.0%
-----------+-----------------------
    Total | 278 100.0%

GOCHW | Freq Percent   Cum.
------+-----------------------
+ | 43 100.0% 100.0%
------+-----------------------
Total | 43 100.0%

GOTBA | Freq Percent   Cum.
------+-----------------------
+ | 1 100.0% 100.0%
------+-----------------------
Total | 1 100.0%

GOHEALER | Freq Percent   Cum.
---------+-----------------------
+ | 9 100.0% 100.0%
---------+-----------------------
  Total | 9 100.0%

GOCHEMIST | Freq Percent   Cum.
----------+-----------------------
+ | 31 100.0% 100.0%
----------+-----------------------
   Total | 31 100.0%

GOFRIENDS | Freq Percent   Cum.
----------+-----------------------
+ | 1 100.0% 100.0%
----------+-----------------------
   Total | 1 100.0%

NOTTREATED	Freq Percent Cum.
\+	1 100.0% 100.0%
Total	1 100.0%

ARISSOON	Freq Percent Cum.
1	243 81.3% 81.3%
2	53 17.7% 99.0%
3	3 1.0% 100.0%
Total	299 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
	299	358	1.197	0.179	0.423	0.024

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	1.000	3.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 48.928, df = 298 p-value = -0.00000

EPICARD	Freq Percent Cum.
1	188 64.4% 64.4%
2	55 18.8% 83.2%
3	49 16.8% 100.0%
Total	292 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
	292	445	1.524	0.587	0.766	0.045

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	2.000	3.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 33.988, df = 291 p-value = 0.00000

TTCARD	Freq Percent Cum.
1	81 27.0% 27.0%
2	161 53.7% 80.7%
3	58 19.3% 100.0%
Total	300 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
	300	577	1.923	0.459	0.677	0.039

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	2.000	3.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 49.172, df = 299 p-value = 0.00000

TTBYCARD	Freq Percent Cum.
1	5 6.3% 6.3%
2	26 32.5% 38.8%
3	43 53.8% 92.5%
4	6 7.5% 100.0%

```
---------+-----------------------
  Total |    80  100.0%


     Total       Sum      Mean   Variance    Std Dev    Std Err
        80       210     2.625      0.516      0.718      0.080

   Minimum     25%ile     Median     75%ile    Maximum       Mode
     1.000      2.000      3.000      3.000      4.000      3.000

Student's "t", testing whether mean differs from zero.
T statistic = 32.691,  df =    79   p-value = 0.00000


TTBYHIST |  Freq  Percent   Cum.
---------+-----------------------
1        |    47   20.6%    20.6%
2        |    69   30.3%    50.9%
3        |   107   46.9%    97.8%
4        |     5    2.2%   100.0%
---------+-----------------------
  Total |   228  100.0%


     Total       Sum      Mean   Variance    Std Dev    Std Err
       228       526     2.307      0.672      0.820      0.054

   Minimum     25%ile     Median     75%ile    Maximum       Mode
     1.000      2.000      2.000      3.000      4.000      3.000

Student's "t", testing whether mean differs from zero.
T statistic = 42.500,  df =   227   p-value = 0.00000


PREGNANT |  Freq  Percent   Cum.
---------+-----------------------
+        |    19    6.4%     6.4%
-        |   280   93.6%   100.0%
---------+-----------------------
  Total |   299  100.0%


WANTCHILD |  Freq  Percent   Cum.
----------+-----------------------
1         |    51   18.3%    18.3%
2         |   183   65.6%    83.9%
3         |    45   16.1%   100.0%
----------+-----------------------
   Total |   279  100.0%


     Total       Sum      Mean   Variance    Std Dev    Std Err
       279       552     1.978      0.345      0.587      0.035

   Minimum     25%ile     Median     75%ile    Maximum       Mode
     1.000      2.000      2.000      2.000      3.000      2.000

Student's "t", testing whether mean differs from zero.
T statistic = 56.275,  df =   278   p-value = 0.00000


FPUSER |  Freq  Percent   Cum.
-------+-----------------------
+      |    50   17.8%    17.8%
-      |   231   82.2%   100.0%
-------+-----------------------
 Total |   281  100.0%


MALARIAPRX |  Freq  Percent   Cum.
-----------+-----------------------
1          |    49   16.3%    16.3%
```

```
2         |  251   83.7%   100.0%
----------+-----------------------
    Total |  300  100.0%


     Total       Sum      Mean   Variance    Std Dev    Std Err
       300       551     1.837      0.137      0.370      0.021

   Minimum     25%ile     Median     75%ile    Maximum       Mode
     1.000      2.000      2.000      2.000      2.000      2.000

Student's "t", testing whether mean differs from zero.
T statistic = 85.912,  df =   299   p-value = 0.00000



HLOROQUIN |  Freq  Percent   Cum.
----------+-----------------------
+         |   14  100.0%   100.0%
----------+-----------------------
   Total |   14  100.0%


PALUDRINE |  Freq  Percent   Cum.
----------+-----------------------
+         |    2  100.0%   100.0%
----------+-----------------------
   Total |    2  100.0%


FANSIDAR |  Freq  Percent   Cum.
---------+-----------------------
+        |    7  100.0%   100.0%
---------+-----------------------
  Total |    7  100.0%


TRADMEDS |  Freq  Percent   Cum.
---------+-----------------------
+        |    3  100.0%   100.0%
---------+-----------------------
  Total |    3  100.0%


TWICE |  Freq  Percent   Cum.
------+-----------------------
+     |   14  100.0%   100.0%
------+-----------------------
Total |   14  100.0%


DAILY |  Freq  Percent   Cum.
------+-----------------------
+     |   18  100.0%   100.0%
------+-----------------------
Total |   18  100.0%


WEEKLY |  Freq  Percent   Cum.
-------+-----------------------
+      |    3  100.0%   100.0%
-------+-----------------------
 Total |    3  100.0%


SOMETIMESW |  Freq  Percent   Cum.
-----------+-----------------------
+          |    8  100.0%   100.0%
-----------+-----------------------
    Total |    8  100.0%


UNKNOWN45 |  Freq  Percent   Cum.
----------+-----------------------
+         |    3  100.0%   100.0%
```

```
----------+-----------------------
   Total |     3  100.0%


OTHER45 |  Freq  Percent   Cum.
--------+-----------------------
+       |     3  100.0%   100.0%
--------+-----------------------
 Total |     3  100.0%


MALARCHILD |  Freq  Percent   Cum.
-----------+-----------------------
1          |  169   56.3%    56.3%
2          |  129   43.0%    99.3%
3          |    2    0.7%   100.0%
-----------+-----------------------
    Total |  300  100.0%


     Total       Sum       Mean   Variance    Std Dev    Std Err
       300       433      1.443      0.261      0.511      0.029

   Minimum     25%ile     Median     75%ile    Maximum       Mode
     1.000      1.000      1.000      2.000      3.000      1.000

Student's "t", testing whether mean differs from zero.
T statistic = 48.934,  df =   299   p-value = 0.00000



GAVECHLOR |  Freq  Percent   Cum.
----------+-----------------------
+         |   61  100.0%   100.0%
----------+-----------------------
   Total |   61  100.0%


GAVECHLOR1 |  Freq  Percent   Cum.
-----------+-----------------------
1          |   32   52.5%    52.5%
2          |   29   47.5%   100.0%
-----------+-----------------------
    Total |   61  100.0%


     Total       Sum       Mean   Variance    Std Dev    Std Err
        61        90      1.475      0.254      0.504      0.064

   Minimum     25%ile     Median     75%ile    Maximum       Mode
     1.000      1.000      1.000      2.000      2.000      1.000

Student's "t", testing whether mean differs from zero.
T statistic = 22.885,  df =    60   p-value = -0.00000



GAVEFANSID |  Freq  Percent   Cum.
-----------+-----------------------
+          |    5  100.0%   100.0%
-----------+-----------------------
    Total |    5  100.0%


GAVEFANSI1 |  Freq  Percent   Cum.
-----------+-----------------------
1          |    2   40.0%    40.0%
2          |    3   60.0%   100.0%
-----------+-----------------------
    Total |    5  100.0%


     Total       Sum       Mean   Variance    Std Dev    Std Err
         5         8      1.600      0.300      0.548      0.245
```

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	2.000	2.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 6.532, df = 4 p-value = 0.00284

TOOKHOSP47 | Freq Percent Cum.

Y	19	21.6%	21.6%
y	69	78.4%	100.0%
Total	88	100.0%	

TOOKHOSP48 | Freq Percent Cum.

1	26	31.0%	31.0%
2	57	67.9%	98.8%
3	1	1.2%	100.0%
Total	84	100.0%	

Total	Sum	Mean	Variance	Std Dev	Std Err
84	143	1.702	0.236	0.485	0.053

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	2.000	3.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 32.141, df = 83 p-value = 0.00000

TOOKCHW47 | Freq Percent Cum.

Y	2	20.0%	20.0%
y	8	80.0%	100.0%
Total	10	100.0%	

TOOKCHW48 | Freq Percent Cum.

1	5	62.5%	62.5%
2	3	37.5%	100.0%
Total	8	100.0%	

Total	Sum	Mean	Variance	Std Dev	Std Err
8	11	1.375	0.268	0.518	0.183

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	2.000	2.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 7.514, df = 7 p-value = 0.00014

TRADITION | Freq Percent Cum.

+	3	100.0%	100.0%
Total	3	100.0%	

CHEMIST | Freq Percent Cum.

+	19	100.0%	100.0%
Total	19	100.0%	

UNKNOWN47	Freq Percent Cum.
+	1 100.0% 100.0%
Total	1 100.0%

MALACOST	Freq Percent Cum.
1	117 69.6% 69.6%
2	26 15.5% 85.1%
3	12 7.1% 92.3%
4	6 3.6% 95.8%
5	4 2.4% 98.2%
9	3 1.8% 100.0%
Total	168 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
168	276	1.643	1.884	1.372	0.106

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	2.000	9.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 15.515, df = 167 p-value = 0.00000

MALARECO	Freq Percent Cum.
1	105 62.1% 62.1%
2	60 35.5% 97.6%
3	4 2.4% 100.0%
Total	169 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
169	237	1.402	0.290	0.538	0.041

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	2.000	3.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 33.882, df = 168 p-value = 0.00000

BEDNETS	Freq Percent Cum.
1	61 20.3% 20.3%
2	239 79.7% 100.0%
Total	300 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
300	539	1.797	0.163	0.403	0.023

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	2.000	2.000	2.000	2.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 77.190, df = 299 p-value = 0.00000

MOTHER51	Freq Percent Cum.
+	52 100.0% 100.0%

```
  Total |    52  100.0%


HERCHILD |  Freq  Percent   Cum.
---------+-----------------------
+        |    56  100.0%   100.0%
---------+-----------------------
  Total |    56  100.0%


SIBLINGS01 |  Freq  Percent   Cum.
-----------+-----------------------
+          |    21  100.0%   100.0%
-----------+-----------------------
    Total |    21  100.0%


HUSBAND51 |  Freq  Percent   Cum.
----------+-----------------------
+         |    28  100.0%   100.0%
----------+-----------------------
   Total |    28  100.0%


NETTREAT |  Freq  Percent   Cum.
---------+-----------------------
1        |    15   24.6%    24.6%
2        |    45   73.8%    98.4%
3        |     1    1.6%   100.0%
---------+-----------------------
  Total |    61  100.0%


     Total       Sum       Mean   Variance    Std Dev    Std Err
        61       108      1.770      0.213      0.462      0.059

   Minimum     25%ile     Median     75%ile    Maximum       Mode
     1.000      2.000      2.000      2.000      3.000      2.000

Student's "t", testing whether mean differs from zero.
T statistic = 29.954,  df =    60   p-value = 0.00000



NETTIME |  Freq  Percent   Cum.
--------+-----------------------
1       |     9   60.0%    60.0%
2       |     6   40.0%   100.0%
--------+-----------------------
 Total |    15  100.0%


     Total       Sum       Mean   Variance    Std Dev    Std Err
        15        21      1.400      0.257      0.507      0.131

   Minimum     25%ile     Median     75%ile    Maximum       Mode
     1.000      1.000      1.000      2.000      2.000      1.000

Student's "t", testing whether mean differs from zero.
T statistic = 10.693,  df =    14   p-value = 0.00000



SEXSPREAD |  Freq  Percent   Cum.
----------+-----------------------
+         |   261  100.0%   100.0%
----------+-----------------------
   Total |   261  100.0%


SKINSPREAD |  Freq  Percent   Cum.
-----------+-----------------------
+          |   107  100.0%   100.0%
-----------+-----------------------
    Total |   107  100.0%
```

BLOODTRANS	Freq Percent Cum.
+	42 100.0% 100.0%
Total	42 100.0%

MOMTOCHILD	Freq Percent Cum.
+	7 100.0% 100.0%
Total	7 100.0%

USECONDOM	Freq Percent Cum.
+	53 100.0% 100.0%
Total	53 100.0%

ABSTINENCE	Freq Percent Cum.
+	7 100.0% 100.0%
Total	7 100.0%

FEWPARTNER	Freq Percent Cum.
+	26 100.0% 100.0%
Total	26 100.0%

ZEROGRAZE	Freq Percent Cum.
+	198 100.0% 100.0%
Total	198 100.0%

NOSKINCUTS	Freq Percent Cum.
+	74 100.0% 100.0%
Total	74 100.0%

NOBADBLOOD	Freq Percent Cum.
+	20 100.0% 100.0%
Total	20 100.0%

UNKNOWN49	Freq Percent Cum.
+	41 100.0% 100.0%
Total	41 100.0%

CONDOMUSE	Freq Percent Cum.
+	140 100.0% 100.0%
Total	140 100.0%

NOSEX	Freq Percent Cum.
+	14 100.0% 100.0%

```
------+-----------------------
Total |    14  100.0%


SOMESEX |  Freq  Percent   Cum.
--------+-----------------------
+       |    68  100.0%   100.0%
--------+-----------------------
 Total |    68  100.0%


STDRX01 |  Freq  Percent   Cum.
--------+-----------------------
+       |     3  100.0%   100.0%
--------+-----------------------
 Total |     3  100.0%


ONEPARTNER |  Freq  Percent   Cum.
-----------+-----------------------
+          |   178  100.0%   100.0%
-----------+-----------------------
    Total |   178  100.0%


NOSKINCU01 |  Freq  Percent   Cum.
-----------+-----------------------
+          |    91  100.0%   100.0%
-----------+-----------------------
    Total |    91  100.0%


AVIODBLOOD |  Freq  Percent   Cum.
-----------+-----------------------
+          |    29  100.0%   100.0%
-----------+-----------------------
    Total |    29  100.0%


UNKNOWN50 |  Freq  Percent   Cum.
----------+-----------------------
+         |    50  100.0%   100.0%
----------+-----------------------
   Total |    50  100.0%


GROUPS |  Freq  Percent   Cum.
-------+-----------------------
1      |  142   47.5%    47.5%
2      |  157   52.5%   100.0%
-------+-----------------------
 Total |  299  100.0%


     Total       Sum      Mean   Variance    Std Dev    Std Err
       299       456     1.525      0.250      0.500      0.029

   Minimum     25%ile     Median     75%ile    Maximum       Mode
     1.000      1.000      2.000      2.000      2.000      2.000

Student's "t", testing whether mean differs from zero.
T statistic = 52.720,  df =   298   p-value = 0.00000



TYPEGRUP |  Freq  Percent   Cum.
---------+-----------------------
1        |   29   25.0%    25.0%
2        |    3    2.6%    27.6%
3        |    4    3.4%    31.0%
4        |   80   69.0%   100.0%
---------+-----------------------
  Total |   116  100.0%
```

Total	Sum	Mean	Variance	Std Dev	Std Err
116	367	3.164	1.703	1.305	0.121

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.500	4.000	4.000	4.000	4.000

Student's "t", testing whether mean differs from zero.
T statistic = 26.109, df = 115 p-value = 0.00000

STDHAD | Freq Percent Cum.
---|---|---|---|
1 | 25 | 8.6% | 8.6%
2 | 262 | 89.7% | 98.3%
3 | 5 | 1.7% | 100.0%
Total | 292 | 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
292	564	1.932	0.098	0.314	0.018

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	2.000	2.000	2.000	3.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 105.226, df = 291 p-value = 0.00000

STDSOON | Freq Percent Cum.
---|---|---|---|
1 | 16 | 61.5% | 61.5%
2 | 7 | 26.9% | 88.5%
3 | 1 | 3.8% | 92.3%
5 | 2 | 7.7% | 100.0%
Total | 26 | 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
26	43	1.654	1.275	1.129	0.221

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	2.000	5.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 7.467, df = 25 p-value = 0.00000

SEXANYONE | Freq Percent Cum.
---|---|---|---|
1 | 13 | 4.5% | 4.5%
2 | 277 | 94.9% | 99.3%
3 | 2 | 0.7% | 100.0%
Total | 292 | 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
292	573	1.962	0.050	0.224	0.013

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	2.000	2.000	2.000	3.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 149.778, df = 291 p-value = 0.00000

PROTECTION | Freq Percent Cum.
---|---|---|---|
1 | 5 | 35.7% | 35.7%

2 | 9 64.3% 100.0%

Total | 14 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
14	23	1.643	0.247	0.497	0.133

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	2.000	2.000	2.000	2.000

Student's "t", testing whether mean differs from zero.
T statistic = 12.362, df = 13 p-value = 0.00000

CONDOMUS01 | Freq Percent Cum.
---
1 | 4 57.1% 57.1%
3 | 1 14.3% 71.4%
4 | 1 14.3% 85.7%
5 | 1 14.3% 100.0%

Total | 7 100.0%

Total	Sum	Mean	Variance	Std Dev	Std Err
7	16	2.286	2.905	1.704	0.644

Minimum	25%ile	Median	75%ile	Maximum	Mode
1.000	1.000	1.000	4.000	5.000	1.000

Student's "t", testing whether mean differs from zero.
T statistic = 3.548, df = 6 p-value = 0.01210

CICSS PROJECT

KPC BASELINE SURVEY

Date: _____ Surveyor: _____

Cluster: _____(1 – 30) Household #: _____ (1 – 10)

Village: _____ Sub-location: _____

Location: _____ Division: _____

INTRODUCTION

CARRY OUT THE INTRODUCTION

ASK THE MOTHER TO ALLOW YOU TO LOOK AT ALL HER HEALTH CARDS/BOOKS, SUCH AS HER CHILD IMMUNIZATION CARD AND PREGNANCY BOOK.

Yie mondo inyisae kadi/buge mag klinik/osiptal magi kata kod mag (N/N)

INFORM THE MOHTER THAT WE ARE NOT ASKING OR RECRODING HER NAME, HER CHILD'S LAST NAME OR HER HOUSEHOLD NUMBER TO INSURE THAT NO PERSON COULD LATER IDENTIFY WHO WAS INTERVIEWED.

Onge ng'ama biro ng'eyo ni in ema ichiwo duoko gi. Ma ema omiyo ok andiko nyingi, namba mar odu be ok andiko.

IDENTIFICATION

1. Age of the mother

   Kaluwore gi chieng' nyuolni in ja higni adi sani?

   Age (in years) _____ (mother must be between the ages 15 – 49)

2. First name and age of the child under two years old

   Nyathini nyinge ng'a?

   First Name _____

   Date of birth _____

   Onyuole karang'o

   Age (in months)_____

   En gi higni adi?

MOTHER'S EDUCATION/RELIGION/OCCUPATION

3. Are you able to read?

Bende inyalo somo?

1. Yes …….. [ ]
2. No. …….. [ ]

4. What was the highest educational level you attained?

1. 0 years ..…….. [ ]
2. 1 – 4 years…..…….. [ ]
3. 5 – 8 years …….. [ ]
4. 9 – 12 years ..…….. [ ]
5. above secondary…….. [ ]

5. What is your religion

In jadin mane?

1. Catholic..…….. [ ]
2. Protestant ..…….. [ ]
3. Legio Maria…….. [ ]
4. Other (specify) …..…….. [ ]

6. Are you living with a man now?

Bende idak gi dichuo sani?

1. Yes …….. [ ]
2. No. …….. [ ]

7. Do you do any "income generating work"

Ang'o ma itimoga ma keloni yuto, kata mana matin?

(multiple answers possible, record all answers)

a. Nothing ..…..…….. [ ]
b. Handicrafts, weaving baskets, pots etc.…….. [ ]
c. Farm labor..……..…….. [ ]
d. Selling non-food farm products.…….. [ ]
e. Serving/services……..…….. [ ]
f. Servant/services……..…….. [ ]
g. Shop keeper, street vendor…..…….. [ ]
h. Nursery ……..…….. [ ]
i. Other (specify)…….. [ ]

CONTOL OF DIARRHEAL DISEASE

9. Are you currently breast-feeding name of child?

   (N/N) pod dhoth?

   1. Yes …….. [ ]
   2. No ….…….. [ ]

10. What are all the fluids and foods name of child ate or drank today and yesterday?

    Ang'ono giri ma (N/N) osemadho kata chamo chakre nyoro nyaka sani?

    (multiple answers possible, record all answers)

    (for unreported foods, ask directly if they gave them to the child)

a. breast milk **chag thuno ……**	[ ] 1 = unprompted 2 = unprompted
b. water, tea, fruit juices, soup **pii, chae, pii olemo, kata sup ……..**	[ ] n = not stated
c. glucose water **glukos ……..**	[ ]
d. milk formula **chak ……..**	[ ]
e. porridge **nyuka…….**	[ ]
f. fruit **olemo……..**	[ ]
g. dark green leafy vegetables **alode ma chalo kaka sukuma, bo, omboga**	[ ]
h. meat, fish, eggs **ring'o, rech, kata tong'…….**	[ ]
i. peanuts, beans **njugu, oganda……**	[ ]
j. honey or sugar **mor kich kata sukari…….**	[ ]
k. oil or fat **mo kata blueband kata mo mabuo……..**	[ ]
j. ugali/matoke/potatoes **kuon, rabolo, rabuon ……**	[ ]
l. others (specify) **(NB do not prompt)**	[ ]

11. When should a mother start adding other liquids and foods to breast-feeding?

    Nyathi onego chak mi chiemo kata gik mimadho bang'

    1. Less than one month (o – 5 days)…….. [ ]
    2. Between 1 and 4 months ..…….. [ ]
    3. After 4 months..…….. [ ]
    4. Doesn't know…….. [ ]

12. What are you currently doing to prevent name of child from getting diarrheal diseases?

    Gin yore mage ma sani itiyogo kuom geng'o tuo mar diep kuom (N/N)?

    (multiple answers possible, record all answers)

    a. Give child safe, clean water to drink…….. [ ]
    b. Exclusive breast-feeding up to 4 months..…….. [ ]
    c. Cook the child's food well..…….. [ ]
    d. Give child a nutritious diet …….. [ ]
    e. All family members use a latrine...…….. [ ]
    f. Quickly dispose the stool of a young child by throwing it down a latrine or burying…….. [ ]
    g. Wash hands with soap and water...…… [ ]

h. Have child immunized..... [ ]
i. Nothing ..... [ ]
j. Other (specify) ..... [ ]

13. Has name of child suffered from diarrhoea during the last two weeks

Bende (N/N) osebedo gi tuo mar diep kuom jumbe ariyo mosekalo?

1. Yes ..... [ ]
2. No ..... [ ] go to 21
3. Doesn't know..... [ ] go to 21

14. During name of child's diarrhea did you breast feed.

E kinde ma nyocha (N/N) diewo bende ne imiyega thuno?

(READ THE CHOICES TO THE MOHTER)

1. More than usual?..... [ ]
2. Same as usual?..... [ ]
3. Less than usual ..... [ ]
4. Stopped completely..... [ ]
5. Child not breastfed..... [ ]

1. Moloyo kaka pile ..... [ ]
2. Kaka pile? ..... [ ]
3. Matin moloyo kaka pile ..... [ ]
4. Nyocha oyudo ka ose weyo thuno..... [ ]
5. Ok nyocha amiyo thuno..... [ ]

15. During name of child's diarrhea did you provide name of child with fluids other than breast milk .

To bende nyocha imiyo (N/N) gik maimadho mamoko e kinde ma nyocha odiewo no?

(READ THE CHOICES TO THE MOTHER)

1. More than usual?..... [ ]
2. Same as usual?..... [ ]
3. Less than usual ..... [ ]
4. Stopped completely..... [ ]
5. Child not breastfed..... [ ]

1. Moloyo kaka pile ..... [ ]
2. Kaka pile? ..... [ ]
3. Matin moloyo kaka pile ..... [ ]
4. Nyocha oyudo ka ose weyo thuno..... [ ]
5. Thuno kende ..... [ ]

16. During name of child's diarrhea did you continue to provide name of child with solid/semisolid foods.

Bende nyocha imiyo (N/N) chiemo mamoko?

(READ THE CHOICES TO THE MOHTER)

1. More than usual?..... [ ]
2. Same as usual?..... [ ]
3. Less than usual ..... [ ]
4. Stopped completely..... [ ]
5. Exclusively breastfeeding ..... [ ]

1. Moloyo kaka pile ..... [ ]
2. Kaka pile? ..... [ ]
3. Matin moloyo kaka pile ..... [ ]
4. Nyocha oweyo ..... [ ]
5. Thuno kende ..... [ ]

17. When name of child had diarrhea, what treatments, if any, did you use?

E kinde ma nyocha (N/N) diewo no, bende ne imiye thieth moro amora?

(multiple answers possible, record all answers)

a. Nothing ..... [ ]
b. ORS sachets ..... [ ]

c. Sugar-salt solution…….. [ ]
d. Cereal based ORT (porridge) ...…….. [ ]
e. Teas or other fluids ……... [ ]
f. Anti-diarrheal medicine or antibiotic…….. [ ]
g. Doesn't know ...…….. [ ]
h. Other (specify) …… …….. [ ]

18. When name of child had diarrhea, did you seek outside advice or treatment for the diarrhea?

E kinde ma nyocha (N/N) diewo bende nyocha iduaro rieko/paro kata thieth koa kuom ng'ama chielo?

1. Yes ……..……...…….. [ ]
2. No. ……..……...…….. [ ] go to 21

19. Erem whom did you seek outside advice or treatment for the diarrhea of name of child?

En ng'ano ma nyocha ong'adoni rieko/paro kata omiyi thieth?

(Multiple answers possible, record all answers)

a. Hospital ……..…….. [ ]
b. Chemists/vendor …..…….. [ ]
c. Community health worker ...…….. [ ]
d. Traditional healer ……..…….. [ ]
e. Traditional birth attendants …….. [ ]
f. Relative and friends …..…….. [ ]
g. Relative and friends ……..…….. [ ]
h. Other (specify) ……..…….. [ ]

19. What were the signs that caused you to seek treatment?

Ranyisi mage ma ne omiyo idhi duaro thieth ni (N/N)?

(Multiple answers possible, record all answers)

a. Doesn't know. ……... [ ]
b. Excessive thirst (dry mouth)…..…….. [ ]
c. Sunken eyes ……...…….. [ ]
d. Loose skin ……..…….. [ ]
e. Decreased urine ……..…….. [ ]
f. Sunken fontanelle ……..…….. [ ]
g. Blood in stool ……. …..……..…….. [ ]
h. Refusal to feed ……..……. [ ]
i. Drowsiness/weakness
(abnormally sleepy or difficult to wake) ……. [ ]
j diarrhea continuing without improvement …….. [ ]
k. Other (specify) …… [ ]

21. What are important actions you should take if name of child has diarrhea?

Ondamo mage ma owinjore ikaw ka (N/N) diewo?

(Multiple answers possible, record all answers)

How much? (circle response)

i. Give breast milk …….. [ ] more same less unsure
j. Give fluids …...…….. [ ] more same less unsure
k. Give porridge or other semi-solid foods…….. [ ] more same less unsure
l. Give solid foods.…….. [ ] more same less unsure
m. Give ORT sachet .....…….. [ ]
n. Give sugar-salt solution .. ...…….. [ ]
o. Give traditional medicine such as herbs ……. [ ]
p. Give anti-diarrhea medicine or antibiotics ...…….. [ ]
q. Take the child tot a hospital/health centre …….. [ ]
r. Withhold fluids ……..……..…….. [ ]
s. Withhold foods ……...…….. [ ]
t. Doesn't know ……..……..…….. [ ]
u. Other (specify) ……..…….. [ ]

22. What signs, if any, would cause you to seek treatment for name of child's diarrhea at a health care facility?

Gin ranyisi mage ma ka ineno sa ma (N/N) diewo to owinjore itere e osiptal?

(Multiple answers possible, record all answers)

a. Doesn't know. …….. [ ]
b. Excessive thirst (dry mouth)…..…….. [ ]
c. Sunken eyes ……..…….. [ ]
d. Loose skin ……..…….. [ ]
e. Decreased urine ……..…….. [ ]
f. Sunken fontanelle ……..…….. [ ]
g. Blood in stool ……. ….……..…….. [ ]
h. Refusal to feed ……...……. [ ]
i. Drowsiness/weakness
(abnormally sleepy or difficult to wake) ……. [ ]
j. diarrhea continuing without improvement …….. [ ]
k. Other (specify) …… [ ]

23. What are the important actions a mother should take when a child is recovering from diarrhea?

Ondamo mage ma owinjore min nyathi okaw sa ma diep nyathi rumo?

(Multiple answers possible, record all answers)

a. Doesn't know. …….. [ ]
b. Give more foods/fluids than usual to the child ….. [ ]
c. Give porridge enriched with high carolic food
such as oil, peanut butter etc.…….. [ ]
d. Give less foods/fluids than usual to the child ...….. [ ]
e. Other (specify) ……..…….. [ ]

RESPIRATORY ILLNESS

24. Has name of child suffered from cough or difficult breathing during the last two weeks?

Bende (N/N) osebedo gi tuo mar ahonda kata kor ma thung' kuom jumbe ariyo mosekalo?

(Multiple answers possible, record all answers)

1. Yes…….…….. [ ]
2. No. ……....…….. [ ] go to 28
3. Doesn't know ..……..…….. [ ] go to 28

25. Has name of child suffered from rapid and difficult breathing during the last two weeks?

To bende (N/N) osebedo gi chandruok mar gamo yueyo kod kor mathung' kuom jumbe ariyo mosekalo?

(demonstrate to the mother rapid and difficult breathing)

1. Yes…….…….. [ ]
2. No. ……....…….. [ ] go to 28
3. Doesn't know ..……..…….. [ ] go to 28

26. When name of child suffered rapid and difficult breathing, what are **all** the actions you took?

To ka nyocha ogamo yueyo kendo kore othung' ondamo mage ma nyocha ikawo?

(Multiple answers possible, record all answers)

Sought treatment at a:

a. Health care facility.…….. [ ]
b. Community health worker ….....…….. [ ]
c. Traditional birth attendant ....…….. [ ]
d. Traditional healer …….…….. [ ]
e. Chemist/shop keeper /vendor…….. [ ]
f. Relatives and friends ....…….. [ ]
g. Did not seek treatment ……..…….. [ ]
h. Other (specify) ……..……. [ ]

27. How soon did you seek treatment at a hospital after you first noticed name of child's rapid and difficult breathing?

Ka nyocha ineno ka (N/N) gamo yueyo kendo kore othung' nyocha itere e osiptal bang' thuolo marom nadi?

1. Within 24 hours ..…….. [ ]
2. Longer than 24 hours.……....…….. [ ]
3. Doesn't know ..……..…….. [ ]

28. When a child has rapid and difficult breathing, what are all the actions a mother should take?

Ka nyathi gamo yueyo kendo kore othung' min nyathi onego okaw ondamo mage?

(Multiple answers possible, record all answers)

a. Health care facility.…….. [ ]
b. Community health worker ….....…….. [ ]
c. Traditional birth attendant ....…….. [ ]
d. Traditional healer …….…….. [ ]
e. Chemist/shop keeper /vendor…….. [ ]
f. Relatives and friends ....…….. [ ]
g. Did not seek treatment ……..…….. [ ]
h. Other (specify) ……..……. [ ]

29. How soon should a mother seek treatment at a hospital after she first notices her child is suffering rapid and difficult breathing.

Min nyathi onego ter nyathi e osiptal bang' thuolo marom nadi ka nyathi ochako gam o yueyo kendo kore othung'?

1. Within 24 hours ..…….. [ ]
2. Longer than 24 hours.……....…….. [ ]
3. Doesn't know ..……..…….. [ ]

CHILD IMMUNIZATION

30. Does the mother have an immunization car/book for her child?

    1. Yes ……...…….. [ ] must see card
    2. Lost it ……...……...…….. [ ] go to 32
    3. Never had one .……...…….. [ ] go to 32

31. Look at the vaccination card/book and record the dates of all the immunizations in the space below.

    BCG…….. day/month/year

    1. 1st ……...…….. [___/__/___]
    2. 2nd ……...…….. [___/__/___]
    3. 3rd ……...…….. [___/__/___]

    OPV 0 (at birth)
    1. 1st ……...…….. [___/__/___]
    2. 2nd ……...…….. [___/__/___]
    3. 3rd ……...…….. [___/__/___]

    Measles ……..…….. [___/__/___]

MATERNAL IMMUNIZATION

32. Does the mother have any health records about her last pregnancy and/or tetanus shots.

    1. Yes ……...…….. [ ] must see card
    2. Lost it ……...…….. [ ] go to 32
    3. Never had one ..……...…….. [ ] go to 32

33. Look at the mother's health records and determine the number of TT vaccinations recorded.

    1. None ……...…….. [ ]
    2. One ……...……...…….. [ ] go to 34
    3. Two or more ..……..…….. [ ] go to 34
    4. Unclear information …… [ ]

34. How many tetanus shots did you receive during your last pregnancy?

    E kinde ma nyocha ipek nyathinii mogik ne iyudo chanjo adi mar winyo kata talarieya?

    1. None ……...…….. [ ]
    2. One ……...……...…….. [ ]
    3. Two or more ..……..…….. [ ]
    4. Doesn't know ……..…… [ ]

FAMILY PLANNING

35. Are you pregnant now?

Bende ipek sani?

4. Yes…….…….. [ ]
5. No. ……....…….. [ ]

36. do you want to have another child in the next to years?

Kuom higni ariyo mabiro bende ingi paro mar nyuolo nyathi moreo?

1. Yes…….…….. [ ]
2. No. ……....…….. [ ]
3. Doesn't know ..……..…….. [ ]

37. Are you currently using any method to prevent getting pregnant?

Bende sani itiyo gi yo moro amora mar komo nyuol?

1. Yes…….…….. [ ]
2. No. ……....…….. [ ] go to 39

38. what is the main method you or your husband are using now to avoid/postpone getting pregnant?

En yor komo nyuol manema in kata jaodi tiyo go sani?

1. Tubal ligation……..…….. [ ]
2. Vasectomy ……....…….. [ ]
3. Norplant …….. ....…….. [ ]
4. Injection ……. ……..…….. [ ]
5. Pill ……..…….. [ ]
6. IUD ……. ....…….. [ ]
7. Barrier method/diaphragm ….. …..…….. [ ]
8. Condom ……..……..……. [ ]
9. Foam/gel …….. ....…….. [ ]
10. Lacational amenorrhea
    (exclusive breast –f deeding) …….. [ ]
11. Rhythm ……..…….. [ ]
12. Abstinence ……. ....…….. [ ]
13. withdrawal (coitus interrupts) ...…….. [ ]
14. Other ….. ……..……...……. [ ]

MALARIA

41. During your last pregnancy, did you take anything to prevent getting malaria – not when you had malaria but to prevent getting it.

E kinde ma nyocha iyach nyathini mogik bende nyocha imuonyo yath moro amora mar geng'o malaria?

3. Yes…….…….. [ ]
4. No. ……...…….. [ ] go to 42

42. What did you take?

Ne imuonyo yien mage?

a. Chloroquine ……..…….. [ ]
b. Paludrine ……..…….. [ ]
c. Fansidar ……..…….. [ ]
d. Traditional medicine ……..…….. [ ]
e. Other (specify) ……..…….. [ ]

43. How often do you take it?

No imuonye/imuonyogi bang' thuolo marom nadi?

(list drugs for each reported dose if more than one drug is being reported on)

f. Twice ……. ……..…….. [ ] _____
g. Daily ……..…….. [ ] _____
h. Weekly ……..……..…….. [ ] _____
i. Monthly ……..…….. [ ] _____
j. Occasionally ……..…….. [ ] _____
k. Doesn't know …….. [ ] _____
l. Other (specify) …….. [ ] _____

42. Has name of child had malaria during the last two weeks.

Bende (N/N) osebedo gi malaria kuom jumbe ariyo mose kalo?

1. Yes…….…….. [ ]
2. No. ……...…….. [ ] go to 44
3. Doesn't know ..……..…….. [ ] go to 44

43. What did you do?

Nyocha ikawo ondamo mage?

(multiple answers possible, record all answers)

If "a" , "b" , or "c" are checked above, for each, ask the mother
WHEN DID YOU TAKE ACTION FOR Name of child's malaria?

Ne ikawo ondamo bang' thuolo marom nadi?

			WHEN? (circle response)	
a.	Gave chloroquine ……..	[ ] within 24 hrs.	after 24 hrs.	unsure
b.	Gave Fansidar ..……..	[ ] within 24 hrs.	after 24 hrs.	unsure
c.	Took child to a health facility ……..	[ ] within 24 hrs.	after 24 hrs.	unsure
d.	Gave traditional medicine …….	[ ] within 24 hrs.	after 24 hrs.	unsure
e.	Doesn't know ……..	[ ]		
f.	Others (specify)..……..…..	[ ]		

44. Are your bednets still in good conditions?

Nedeni mag suna pod beyo?

1. Bednets ……..…….. [ ]
2. No bed nets.……...…….. [ ] go to 48

45. Who usually sleep under the bednets

Jomage ma umorega gi nedno/nedego?

(Multiple answers possible, record all answers)

a. Female respondent…….. [ ]
b. Her child under age 2 years .....…….. [ ]
c. Other children in the household …….. [ ]
d. Husband ……..…….…….. [ ]
e. Other (specify) ……..…….. [ ]

46. Have your nets ever been impregnated.

Bende ise nyumo nedini/nedenigi e yath:

1. Yes……..…….. [ ]
2. No. ……....…….. [ ] go to 48
3. Doesn't know ..……..…….. [ ] go to 4

47. Since the 4th month of the year, have you impregnated your bednets.

Bende ise nyumo nedini/nedenigi e yath dwe mar 4 nyaka sani?

1. Yes……..…….. [ ]
2. No. ……....…….. [ ]
3. Doesn't know ..……..…….. [ ]

HIV/ ADIS

48. How is AIDS transmitted?

Ere kaka ayaki landore?

(Multiple answers possible, record all answers)

a. Sex ……..…….. [ ]
b. Skin piercing by unsterile instruments …..…….. [ ]
c. Transfusion of infected blood …….. [ ]
d. Mother to child .....…….…….. [ ]
e. Other (specify)…..……..…….. [ ]

49. What are you doing now to prevent setting AIDS?

Ondamo mane ma ikawo esani mondo ayaki kid maki?

(Multiple answers possible, record all answers)

a. Use of condom...…..…….. [ ]
b. Abstinence ……..…..…….. [ ]
c. Reduced no. of sexual partners …..…….. [ ]
d. STD treatment .....……..…….. [ ]
e. Stay with one partner (zero grazing) ...……. [ ]
f. Avoid skin piercing by unsterile instrument…….. [ ]
g. Avoid unscreened blood transfusion .. …..…….. [ ]
h. Transfusion of infected blood …….. [ ]
i. Doesn't know .....……..…….. [ ]
j. Other (specify)…..……..…….. [ ]

50. What are all the ways a person can prevent themselves from getting AID?

Ere kaka wanyalo geng'o ayaki mondo kik makwa?

(Multiple answers possible, record all answers)

a. Use of condom...…..…….. [ ]
b. Abstinence ……..…..…….. [ ]
c. Reduced no. of sexual partners …..…….. [ ]
d. STD treatment .....……..…….. [ ]
e. Stay with one partner (zero grazing) ...……. [ ]
f. Avoid skin piercing by unsterile instrument…… [ ]
g. Avoid unscreened blood transfusion .. …..…….. [ ]
h. Doesn't know .....……..…….. [ ]
i. Other (specify)…..……..…….. [ ]

DO NOT ASK THE FOLLOWING QUESTIONS IF YOU ARE NOT ABLE TO BE ALONE WITH THE MOTHER.

The following questions are bout STDs and are quite personal. For us to develop ways to protect yourself and your fellow villagers. It is important that you answer the following questions very truthfully.

Koro adwaro penji penjo modok kor ka tuoche mag yembe mag nyach kendo penjogi biro mulo kit ngimani matut. Akwayi mondo iyie iduok penjogi ka in thuolo nikech duokogi biro konyowa loso chenro mar puonjo oganda wa kuom geng'o tuochegi.

Your answers will be kept strictly confidential. To ensure no one can identify who gave these answers. We have been careful not to record your name or house number.

Duoko ni duto biro bedo siri maonge ng'ama biro nenogi. Ma Emma Oomiya ok indigo kneeing kata dale ma awoke.

51. Have you had an STD within the last year?

Bende tuo-touch ma nay so makekuom Higo ache moose Kao?

1. Yes…….. [ ]
2. No. ……..…….. [ ]
3. Doesn't know ..……..…….. [ ]

52. How soon did you seek treatment?

Ne idhi ka thieth bang' thuolo ma romo nade?

1. Within one month …..…….. [ ]
2. Over one month……..…….. [ ]
3. Never ……..……..…….. [ ]
4. Doesn't know ...…….. [ ]
5. No response ...……..……. [ ]

I have completed this survey in a correct and accurate manner

_____ _____

Signature of enumerator **Date**

I have reviewed this survey and find it accurate

_____ _____

Signature of enumerator **Date**

1 Population estimates collected from Central Bureau of Statistics - Siaya Office

Annex D:

Memorandum of Understanding

As detailed in the text, a formal Memorandum of Understanding to be signed between the district health management team and CARE is currently under development. A copy of the signed MOU will be submitted to USAID.

Annex E:

CVs of key CARE staff

Annex F:

Map of program location

Annex G:

Training Materials

Annex H:

IEC Strategy

Annex I:

Monitoring and Evaluation System Plan

Intervention	Activities	Indicators			Data needed	Source of data
		input	process	Output		
ARI	1. Recruitment of CHWs/VHCs / SHCs	1.# of MOH/CARE /Cty meetings held for developing Selection criteria	1.Selection criteria document developed by MOH/CARE /CTY	1. # of CHWs/VHCs selected using the criteria developed	Input level: # of meetings held Output level # of CHWs/VHCs selected	Community Meeting Proceedings
	2.Train CHWs on Case Mx of ARI	1.% contribution from cty towards the cost of training CHWs/VHCs 2.% contribution from CARE/MOH towards the cost of training CHWs/VHCs 3.% cost of producing ARI IEC materials	1.# of training sessions conducted on ARI 2. # of days each ARI training session took	1.# of CHWs trained on ARI 2. % of CHWs trained on ARI and are practising ARI case management 3. Proportion of infants seen by CHWs 4.# of children with cough or difficult breathing treated by CHWs	Input Level: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH 4.Total cost of producing IEC materials on all interventions 5. Cost of producing ARI IEC materials Process level: 1.Total # of trainings held 2. # of trainings held on ARI, IEC and Interpersonal communication Output Level: 1.# of CHWs/VHCS selected per site 2. # of CHWs/VHCs trained on ARI, IEC and Communication 3. Total # of mothers surveyed 4. # of mothers with improved knowledge on recognition of RR as a sign of ARI and promptly seek care from CHWs/HF	1. Training reports 2. Financial report from project
	3.Train CHWs on Interpersonal Communication with mothers	1.% contribution from cty towards the cost of training CHWs/VHCs 2.% contribution from CARE/MOH towards the cost of training CHWs	1.# of training sessions conducted on Interpersonal communication 2. # of days each training session took	1.# of CHWs trained on interpersonal communication 2. % increase in the proportion of CHWs with improved interpersonal communication with mothers	Input Level: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH Process level: 1.Total # of trainings held 2. # of trainings held on Interpersonal communication Output Level: 1. # of CHWs/VHCs trained on Communication	1. Training report 2. Financial report from project

ARI	4.Train CHWs/VHCs on use of IEC materials	1.% contribution from cty towards the cost of training CHWs/VHCs 2.% contribution from CARE/MOH towards the cost of training CHWs/VHCs	1.# of training sessions conducted on use of IEC materials 2. # of days each training session took	1.# of CHWs trained on use of IEC materials 2. % increase in the # of CHWs/VHCs correctly using IEC materials 3.Proportion of mothers with improved knowledge on recognition RR as a sign of ARI 4. % increase in the # of mothers who seek medical treatment for children with rapid or difficult breathing within 24 hours	<u>Input Level</u>: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on IEC use <u>Output Level</u>: 1.# of CHWs/VHCS selected per site 2. # of CHWs/VHCs trained on IEC 3. Total # of mothers surveyed 4. # of mothers with improved knowledge on recognition of RR as a sign of ARI	1. Training report 2. Financial report from project
	5. Conduct ARI clinical assessment of CHWs using Supervisory checklist	1. # of CHWs taken to H/F for clinical assessment on ARI case mx /site	1.# of clinical assessment sessions conducted at the H/F	1.Proportion of CHWs who correctly assess, classify, treat and refer 2.% change in improvement in ARI case mx between sessions 1st, 2nd	Input Level: 1..# of CHWs who practice ARI case mx 2.# of CHWs who practice ARI case mx and are taken to H/F for assessment Process level: 1.Total # of sessions conducted at H/F for assessment Output level: 1.Total of CHWs assessed at H/F 2.# of CHWs correctly assess, classify, treat, and refer a child with ARI in 1st , 2nd ,etc	1. Supervisory Checklist
	6. Review of Clinical Registers on ARI case mx	1. # of registers sampled	1. # of cases taken from each register expressed as % in the total	1.% of assessment, classification, treatment and referral errors made in ARI case mx 2.% change in improvement in ARI case mx between review exercises	Input Level: 1..# of registers taken Process level: 1.Total # of cases seen in the register 2. # of cases taken from each register Output level: 1# of correct assessment, classifications, treatment and referral made 1st , 2nd ,etc	1. Clinical Register

Malaria	Train CHWs on Malaria case Mx	1.% contribution from cty towards the cost of training CHWs/VHCs 2.% contribution from CARE/MOH towards the cost of training CHWs/VHCs 3.% cost of producing malaria IEC materials	1.# of training sessions conducted on malaria 2. # of days each malaria training session took	1.# of CHWs trained on malaria 2.% of CHWs trained o n malaria and are practising malaria case management 3.# of VHCs trained on malaria prevention and control activities 4.% of VHCs actively conducting malaria prevention and control education	<u>Input Level</u>: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH 4.Total cost of producing IEC materials on all interventions 5. Cost of producing malaria IEC materials <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on malaria, IEC and Interpersonal communication <u>Output Level</u>: 1.# of CHWs/VHCS selected per site 2. # of CHWs/VHCs trained on malaria, IEC and Communication 3. Total # of mothers surveyed 4.# of mothers with improved knowledge on recognition of fever as a sign of malaria and promptly seek care from CHWs/HF 5. Total # of VHCs trained on malaria prevention and Control education 6. # of VHCs conducting the malaria prevention and control activities 7. # of children seen when had malaria	3. Training reports 4. Financial report from project 5. Rapid Mini Surveys

Malaria	Train CHWs/VHCs on Malaria control and prevention strategies (Prophylaxis, Promotion for the use of treated nets, redipping of nets)	1.% contribution from cty towards the cost of training CHWs/VHCs 2.% contribution from CARE/MOH towards the cost of training CHWs/VHCs 3. % cost of producing malaria IEC materials	1.# of training sessions conducted on use of IEC materials 2. # of days each training session took	1.# of CHWs/VHC trained on use of IEC materials 2. % increase in the # of CHWs/VHCs correctly using IEC materials 3.Proportion of mothers with improved knowledge on recognition fever as a sign of malaria 4.% of VHCs trained on malaria prevention and control activities 5.% of pregnant mothers using fansidar as a prophylaxis 6.% of mothers with children less 2 years sleeping under treated nets 7.% of household using treated nets	<u>Input Level</u>: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on IEC use <u>Output Level</u>: 1.# of CHWs/VHCS selected per site 2. # of CHWs/VHCs trained on IEC 3. Total # of mothers surveyed 5.# of mothers with improved knowledge on recognition of fever as a sign of malaria and promptly seek for care from CHW or HF 6.Total # of VHCs in the project 7. # of VHCs trained on Malaria prevention and control 8.Total of # expectant mothers in the project area 9. # of mothers using fansidar as a prophylaxis 10. Total # of mothers with children less than 2 years 11. # of mothers with children less than 2 years sleeping under treated nets 12. Total # of households in the project area 13.# of household using treated nets within a span of 6 months	3. Training report 4. Financial report from project 5. Rapid Mini Surveys

Malaria	Train CHWs /VHCs on Interpersonal Communication	1.% contribution from cty towards the cost of training CHWs/VHCs 2.% contribution from CARE/MOH towards the cost of training CHWs	1.# of training sessions conducted on Interpersonal communication 2. # of days each training session took	1.# of CHWs trained on interpersonal communication	Input Level: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH Process level: 1.Total # of trainings held 2. # of trainings held on Interpersonal communication Output Level: 1. # of CHWs/VHCs trained on Communication	3. Training report 4. Financial report from project
	Conduct Malaria Clinical Assessment of CHWs using Supervisory Checklist	1. # of CHWs taken to H/F for clinical assessment on ARI case mx /site	1.# of clinical assessment sessions conducted at the H/F	1.Proportion of CHWs who correctly assess, classify, treat and refer 2.% change in improvement in malaria case mx between sessions 1st, 2nd 3.Proportion of CHWs who correctly give key messages on malaria prevention and control	Input Level: 1..# of CHWs who practice ARI case mx 2.# of CHWs who practice ARI case mx and are taken to H/F for assessment Process level: 1.Total # of sessions conducted at H/F for assessment Output level: 1.Total of CHWs assessed at H/F 2.# of CHWs correctly assess, classify, treat, and refer a child with ARI in 1st , 2nd ,etc	1. Supervisory Checklist
	Review of Clinical Register	1. # of registers sampled	1. # of cases taken from each register expressed as % in the total	1.% of assessment, classification, treatment and referral errors made in ARI case mx 2.% change in improvement in ARI case mx between review exercises	Input Level: 1..# of registers taken Process level: 1.Total # of cases seen in the register 2. # of cases taken from each register Output level: 1# of correct assessment, classifications, treatment and referral made 1st , 2nd ,etc	1. Clinical Register

Diarrhea	Train CHWs/VHCs on Prevention and Control of Diarrheal diseases	1.% contribution from cty towards the cost of training CHWs/VHCs 2.% contribution from CARE/MOH towards the cost of training CHWs/VHCs 3. % cost of producing IEC materials on diarrhea	1.# of training sessions conducted on diarrheal prevention and control activities 2. # of days each training session took 3. # of training sessions on the use of IEC materials targeting diarrhea prevention and control	1.# of CHWs/VHC trained on use of IEC materials targeting dairrhea 2. % increase in the # of CHWs/VHCs correctly using IEC materials targeting diarrhea 3.Proportion of mothers with improved knowledge on ORT 4.% of VHCs trained on prevention and control of diarrhea 5.% o mothers reporting usage of ORT immediately dairrhea starts 6. % of mothers reporting exclusive breast feeding of their children up to the age of 4 months. 7. % reduction in the incidence of diarrheal diseases	Input Level: Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH 4.Total cost of producing IEC materials on all interventions 5. Cost of producing diarrhea IEC materials <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on diarrhea prevention and control. 3.# of training s held on the use of IEC materials targeting diarrhea <u>Output Level</u>: 1.# of CHWs/VHCS selected per site 2. # of CHWs/VHCs trained on diarrhea prevention and control., use of IEC 3. # of VHCs carrying the preventive and control DD 4. Total # of mothers surveyed 6. Total # of VHCs trained in prevention and control of diarrhea 7.# of VHCs conducting prevention and control of diarrhea education 8.# of mothers reporting exclusive breast feeding up to the age of 4 months 9.Total population of the under 5 yrs in the project area Prevalence of diarrheal diseases	1.Training report 2. Financial report from project 3. Rapid Mini Surveys

Diarrhea	Train CHWs on Diarrhea case Mx	1.% contribution from cty towards the cost of training CHWs/VHCs 2.% contribution from CARE/MOH towards the cost of training CHWs/VHCs 3.% cost of producing I IEC materials on diarrhea	1.# of training sessions conducted on diarrhea case Mx 2. # of days each training session took	1.# of CHWs trained on Diarrhea 2. % of CHWs trained on diarrhea and are practicing diarrhea case management	Input Level: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH 4.Total cost of producing IEC materials on all interventions 5. Cost of producing ARI IEC materials Process level: 1.Total # of trainings held 2. # of trainings held on ARI, IEC and Interpersonal communication Output Level: 1. # of CHW trained on Diarrhea case Mx 2. Total # of mothers surveyed 3.# of children seen byby CHWs monthly. 4# of mothers reporting usage of ORT at the onset of diarrhea and seek for immediately from CHW or HF	1.Training report 2. Financial report from project 3. Rapid Mini Surveys
	Identify and recruit Women and Breast Feeding Support Groups existing the project area	1.# of MOH/CARE /Cty meetings held for developing recruitment criteria	1Recruitment criteria document developed by MOH/CARE /CTY	1. # of women and breast feeding support groups recruited using the criteria developed		Community Meeting Proceedings

Diarrhea	Train CHWs, Women groups and Breast Feeding Support Groups on Exclusive Breast feeding	1.% contribution from cty towards the cost of training CHWs/VHCs 2.% contribution from CARE/MOH towards the cost of training CHWs/VHCs 3.% cost of producing I IEC materials on diarrhea	1.# of training sessions conducted on diarrhea case Mx 2. # of days each training session took	1.# of CHWs, Women, Breast feeding Support groups and TBAs trained on breast feeding techniques and promotion 2. % of CHWs, Women and breast feeding support groups actively promoting exclusive breast feeding. 3.% of mothers reporting exclusive breast feeding up to the age of 4 months	Input Level: Total cost of training CHWs/W/groups/BFSGs/TBAs 2. Amount contributed from cty 3. amount contributed from CARE/MOH 4.Total cost of producing IEC materials on all interventions 5. Cost of producing IEC materials on diarrhea, exclusive breast feeding <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on exclusive breast feeding. 3.# of training s held on the use of IEC materials targeting exclusive breast feeding <u>Output Level</u>: 1.# of CHWs, W/groups/BFSG recruited per site 2. # of CHWs/W/groups/BFSGs trained on exclusive breast feeding techniques 3. # of CHWs/W/groups/BFSGs carrying the promotion on exclusive breast feeding 4. Total # of mothers surveyed 5.# of mothers reporting exclusive breast feeding up to the age of 4 months	Rapid Mini Surveys Demographic Survey report Recruitment meeting Proceedings Training report KPC Survey report

Diarrhea	Conduct Diarrhea Clinical Assessment of CHWs using Supervisory Checklist	1. # of CHWs taken to H/F for clinical assessment on diarrhea case mx	1.# of clinical assessment sessions conducted at the H/F	1.Proportion of CHWs who correctly assess, classify, treat and refer children with diarrhea 2.% change in improvement in diarrhea case mx between sessions 1st, 2nd 3.Proportion of CHWs who correctly give key messages on diarrhea prevention and control	Input Level: 1..# of CHWs who practice diarrhea case mx 2.# of CHWs who practice diarrhea case mx and are taken to H/F for assessment Process level: 1.Total # of sessions conducted at H/F for assessment Output level: 1.Total of CHWs assessed at H/F 2.# of CHWs correctly assess, classify, treat, and refer a child with ARI in 1st , 2nd ,etc	1. Supervisory Checklist
	Review of Clinical Register	1. # of registers sampled	1. # of cases taken from each register expressed as % in the total	1.% of assessment, classification, treatment and referral errors made in diarrhea case mx 2.% change in improvement in diarrhea case mx between review exercises	Input Level: 1..# of registers taken Process level: 1.Total # of cases seen in the register 2. # of cases taken from each register Output level: 1# of correct assessment, classifications, treatment and referral made 1st , 2nd ,etc	1. Clinical Register

Vitamin A	Train CHWs on the integration of CMCI with VAC in the new S/locations	1.% contribution from cty towards the cost of training CHWs 2.% contribution from CARE/MOH towards the cost of training CHWs 3.% cost of producing I IEC materials on Vitamin A	1.# of training sessions conducted on Vitamin A integration 2. # of days each training session took	1.# of CHWs, trained on Vitamin A integration 2. % of CHWs trained who are correctly dispensing VAC. 3.Proportion of sick children put on Vitamin A therapy correctly. 4. Proportion of lactating mothers put on Vitamin A	Input Level: Total cost of training CHWs 2. Amount contributed from cty 3. amount contributed from CARE/MOH <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on Vitamin A. <u>Output Level</u>: 1.# of CHWs trained on Vitamin A integration 2. # of CHWs correctly dispensing VAC to sick children 3.Total # of sick children seen 4.# of children with specific conditions put on VAC 5.Qty of VAC distributed 6.Total # of lactating mothers in the project area. 7.# of lactating mothers who received VAC	1.Training report 2. Financial report 3.VAC Monitoring sheet 5. Clinical register 6. Supervisory checklist 7. Maternal Child health register

Vitamin A	Train CHWs, CBDs, TBAs, VHC, W/groups and BFSGs on mother education and counseling on Vitamin A consumption and production	1.% contribution from cty towards the cost of training CHWs/CBDs, TBAs, VHCs. W/groups & BFSGs 2.% contribution from CARE/MOH towards the cost of training CHWs,CBDs,VHCs,TBAs, W/groups & BFSGs 3.% cost of producing I IEC materials on Vitamin A	1.# of training sessions conducted on Vitamin A integration 2. # of days each training session took	1.# of CHWs,CBDs,VHCs, W/groups & BFSGs trained on mother education and counseling on Vitamin A 2. % of CHWs ,CBDs, VHCs, TBAs w/GPs and BFSGs carrying out mother education and counseling . 3.Increased % of mothers with knowledge on Vitamin A rich foods 4. % increase in means scores of animal & weighted (plant &animal)	Input Level: Total cost of training CHWs, TBAs, VHCs, CBDs, W/Gps & BFSGs 2. Amount contributed from cty 3. amount contributed from CARE/MOH <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on Vitamin A. <u>Output Level</u>: 1.# of CHWs, TBAs, CBDs, VHCs, W/Gps & BFSGs trained on mother education and counseling 2. # of mothers sampled in the survey 3.# of mother with knowledge on Vitamin A rich foods 4. # of days Vitamin A rich foods are consumed.	Rapid Mini Surveys Training report Financial report from project
Vitamin A	Train other health providers(DMW, CISS, Action Aid, Mbaga and Good Samaritan) on Vitamin A supplementation and consumption of Vitamin A rich foods	1.% contribution from other agencies towards the cost of training their health providers 2.% contribution from CARE/MOH towards the cost of training health providers from other agencies on Vitamin A	1.# of training sessions conducted on Vitamin A 2. # of days each training session took	1.# of health providers trained on Vitamin A 2. % of health providers trained who are correctly dispensing VAC. 3.Proportion of sick children put on Vitamin A therapy correctly. 4. Proportion of lactating mothers put on VAC 4. Proportion of lactating mothers put on Vitamin A	Input Level: 1.Total cost of training health providers 2. Amount contributed from other agencies 3. amount contributed from CARE/MOH <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on Vitamin A. <u>Output Level</u>: 1.# of health providers trained 2. # of health providers trained carrying Vitamin A supplementation 3.Total number of lactating mothers in their catchment area 4. # of lactating mothers put on Vitamin A 6.Total # of sick children seen by health providers 7. # of sick children put on VAC correctly	Static Health facility records MOH reports

	Train school teachers on Vitamin A awareness creation and education	% contribution of the training cost by CARE/MOH	# training sessions conducted # of days each session took	1.# of school teachers trained 2.% of teachers trained who are involved in Vitamin A promotion activities	Input Level: 1.Total cost of training contributed by CARE/MOH Process level: 2. Total # of trainings Total # of days each training session took Output level: 1.# of teachers trained 2.# of teachers actively involved in the promotion of Vitamin A activities at the school health	Training report Financial report Field days report Rapid Mini Surveys
Vitamin A	Publication of Vitamin A Newsletter by the Working Groups on semi annual basis.	Total cost of producing newsletter Technical expertise	# of Wrking Groups meetings on Newsletter production	Timely production of Newsletter on Vitamin A # of target groups reached with Newsletter	Input level: 1Unit cost of producing a Newsletter Process level: 1. .# of meetings held Output level: 1.# of each target reached with Newsletter 2.Total # of leaders reached with the Newsletter 3.# of leaders using Newsletter in advocating for Vitamin A activities	Field days Report Minutes of WG Meetings Financial report Rapid Mini Surveys

STI/HIV/AIDS	Train CHWs, VHCs CBDS on the promotion of ABC (Safe Sex) in HIV/AIDS prevention and control	1.% contribution from other agencies towards the cost of training CHWs/ CBDs/ VHCs 2.% contribution from CARE/MOH towards the cost of training CHWs/ CBDs on prevention and control HIV/AIDS	1.# of training sessions conducted prevention and control of HIV/AIDS 2. # of days each training session took	1.# of CHWs/ CBDs VHCs trained on prevention and control of HVI/AIDS 2. % CHWs/CBDs/ /VHCs trained who are carrying out prevention and control activities on HIV/AIDS 3.% of people reporting safe sex with their non-regular partners 4.% increase in the # of people with STI seeking prompt medical care from qualified health provider	Input Level: 1.Total cost of training CHW/CBDs/VHCs 2. Amount contributed from community on training of CHWs/CBDs/VHCs 3. amount contributed from CARE/MOH <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on HIV/AIDS prevention and control <u>Output Level</u>: 1.# of CHWs/CBDs/VHCs trained on prevention and control of HIV/AIDS 2. # of CHWs/CBDs/VHCs who carry out promotional activities on STI/HIV/AID 3. # of people sampled 4. # of reporting having had safe sex with their non-regular partners 6.# of people being treated for STI at rural H/F	Training report Financial report Health facility records KPC Survey results

STI/HIV/AIDS	Identify and train Youth groups on the promotion of ABC (Safe Sex) in HIV/AIDS prevention and control	1.% contribution from various Youth groups 2.% contribution from CARE/MOH towards the cost of training Youth groups on prevention and control HIV/AIDs	1.# of training sessions conducted prevention and control of HIV/AIDS 2. # of days each training session took	1.# of Youth groups trained on prevention and control of HVI/AIDS 2. % Youth groups trained who are carrying out promotional activities on HIV/AIDS 3.% of people reporting safe sex with their non-regular partners 4.% increase in the # of people with STI seeking prompt medical care from qualified health provider	Input Level: 1.Total cost of training Youth Groups 2. Amount contributed from community on training of Youth Groups 3. amount contributed from CARE/MOH <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on promotion of HIV/AIDS <u>Output Level</u>: 1.# of Youth groups trained on promotion of STI/HIV/AIDS activities 2. # of Youth groups who carry out promotional activities on STI/HIV/AID 3. # of people sampled 4. # of reporting having had safe sex with their non-regular partners 6.# of people being treated for STI at rural H/F	Training report Financial report Health facility records KPC Survey results
	Train Community leaders in STI/HIV/AIDS prevention and control	Total cost of training community leaders	# of trainings conducted for community leaders	# of community leaders trained Proportion of trained community leaders actively involved in the STI/HIV/AIDS advocacy/campaigns	Input level: Total training cost Process level: # of training sessions held Output level: 1.# of community leaders trained 2. # of community leaders actively carrying out promotion of prevention and control of STI/HIV/AIDS	Training report Financial report

STI/HIV/AIDS	Train Health providers from rural health facilities on Syndromic Diagnosis & Management of STI	Total cost of training health providers	# of training sessions held on Syndromic Diagnosis & Mngt # of days each session took	1.# Health providers trained 2.# of Health facilities receiving STI drug kit from MOH 3.% of health facilities providing syndromic mngt of STI 4.% increase in the # of cases of STI seen at health facilities	Input level: Total training cost Process level: # of training sessions held Output level: 1.# of health providers trained 2. Total # of health in project area 3. # of health facilities syndromic diagnosis of STI 4.# of cases seen at health facilities	Training report Financial report Health facility records Reports from MOH HIS Office
Immunization	Train CHWs/VHCs/Community leaders on community Immunization strategy	1.% contribution from community 2.Contribution from CARE/MOH towards the cost of training CHWs/VHCs/leaders on Immunization strategy	1.# of training sessions conducted on immunization strategy 2. # of days each training session took 3.# of CHWs with complete register on the # of children and expectant mothers	# of CHWs, VHCs& leaders trained Proportion of communities who start and manage MOH/Community Immunization services Proportion of under 5 receiving immunization vaccines per site Proportion of expectant mothers receiving TT per site	Input level: 1.Total cost of training 2.Training contribution from the community Process level: 1.# of training sessions done 2.# of days each training session took Output level: 1.# of CHWS, VHCs/leaders trained 2.# of sites receiving outreach services 3. Total # of children who have not completed immunization 4. # of children receiving immunization antigens 5. Total # of expectant mothers 4. # of expectant mothers receiving TT	Maternal /Child health register Community chalkboard Immunization records at community level Immunization Summary sheet for verification KPC Survey

Child Spacing	Train CHWs,TBAs, VHCs and community leaders on promotion of child spacing through mother/father education.	1.% contribution from community towards the training of CHWs, TBAs, VHCs & leaders. 2.Contribution from CARE/MOH towards the cost of training CHWs/VHCs/leaders on child spacing	1.# of training sessions conducted child spacing 2. # of days each training session took s	1.# of CHWs, VHCs TBAs & leaders trained 2.% increase in the modern contraceptive use 3.Proportion of women of reproductive age reached with education on child spacing.	Process level: 1.# of training sessions conducted child spacing 2. # of days each training session took Output level: 1.# of CHWs, VHCs,TBAs/ leaders trained # of TBAs,VHCs and leaders actively involved in advocating for child spacing 2.# of mothers using modern contraceptive methods 3.Total # of women of reproductive age # of women of reproductive age reached with education on child spacing.	Training report Financial report Community Chalkboard Health facility reports Rapid Mini Surveys
	Identify and train CBDs in areas with low coverage through the existing MOH CBD program	1. % contribution from community towards the training of CBDs. 2.Contribution from CARE/MOH towards the cost of training CBDs on child spacing	1.# of training sessions conducted on child spacing for CBDs 2. # of days each training session took	1.# of CBDs trained using 2.% increase in the modern contraceptive use 3.Proportion of women of reproductive age reached with education on child spacing.	Process level: 1.# of training sessions conducted child spacing 2. # of days each training session took Output level: 1.# of CBDs trained # of CBDs actively involved in advocating for child spacing 2.# of mothers using modern contraceptive methods 3.Total # of women of reproductive age # of women of reproductive age reached with education on child spacing.	Training report Financial report Community Chalkboard Health facility reports Rapid Mini Surveys

Capacity Building & Sustainability: HIS	Train CHWs, VHCs & SHCs on data collection and management for decision making at community level	1.% contribution from community towards the training of CHWs, VHCs & SHCs on data collection and management. 2.Contribution from CARE/MOH towards the cost of training CHWs, VHCs & SHCs on data collection and Management	1.# of training sessions conducted on data collection & management for CHWs, VHCs& SHC 2. # of days each training session took	1.Total cost of training on data management 2. Community contribution # of training sessions done # of days each session took 1.# of CHWs, VHCs and community leaders trained on data management 2. Proportion of VHCs able to summarize data and plot on the chalk board 3. Increased use of community health information system by the VHC, SHCs for planning health activities (deaths? Low immuinzation? Low nets sale? Low prophylaxis utilization? Increased episode of cases? Low coverage of children? 4. Increased supervision of CHWs on Money collection, Cases seen, coverage of expectant mothers & under 5s and stock balance of drugs by the VHCs.	Input level: 1.Total cost of training 2.amount contributed from community Process level 1.# of trainings held 2.# of days each training took Output level: 1.# of VHCs, SHCs & CHWs trained 2. # of VHCs summarizing and plotting data on chalkboard 3..# of VHCs using community information for planning their activities 4. # of supervisory visits made by VHCs to CHWs on data management	Field Notebooks Quarterly Progress reports from VHCs Observation of Chalkboard

Capacity Building & Sustainability: HIS	Training MOH staff to manage and support community Information system and CMCI	Total cost of training MOH staff	# of training sessions conducted # of days each session took	1.# of MOH staff trained on Computer Applications 2.# of MOH staff trained on Community Health Information system 3.# of MOH staff trained on CMCI 4.Proportion of MOH staff that support the community information system 6.Proportion of MOH staff supporting CHWs on CMCI 7. % of CHWs who correctly assess, classify, treat and refer sick children	Input level: 1.Total cost of training Process level 1.# of trainings held on computer 2.# of trainings held on Information system Output level: 3.# of HIS, PHTs and Nurses trained on Community Information system 5.# of HIS staff trained on Computer applications 6.Total # of MOH staff trained on CBHIS 7.# of MOH staff who carry out support to CBHIS. 8.Total # of MOH staff trained on CMCI 9.# of MOH staff supporting CHWs on CMCI 10. Total # of CHWs assessed at H/F 11. # of CHWs who correctly assess, classify, treat and refer sick children	Training report Financial report Report Community pharmacies
	Equip the MOH HIS with computer and motorbike.	1.Total cost of providing computer. 2. Total cost of providing motorbike	Procuring a computer Procuring motorbike	Computer availed to MOH Motorbike availed to MOH	Input level: Cost of procuring a computer & motorbike Process level Handing over process documented Output level # of computers provided # of motorbike provided	Procurement documents Handing over documents
Capacity Building & Sustainability: HIS	Train project staff in data analysis, interpretation and use	Total cost of training	# of training sessions # of days each session took	1. # of staff trained 2. increased support for community HIS by project staff 3.increased use of information for improving project implementation by the project staff	Input level: Total cost of training Process level # of training sessions held # of days each training took Output level:	

Data needed	Source of data	Who collects	Freq of collection/ analysis	Analysis questions	Type of analysis	Who provides feedback
Input level: # of meetings held Output level # of CHWs/VHCs selected	Community Meeting Proceedings	FHC CBA	Monthly	How well does the selection criteria developed work?	Descriptive analysis	FHC
Input Level: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH 4.Total cost of producing IEC materials on all interventions 5. Cost of producing ARI IEC materials Process level: 1.Total # of trainings held 2. # of trainings held on ARI, IEC and Interpersonal communication Output Level: 1.# of CHWs/VHCS selected per site 2. # of CHWs/VHCs trained on ARI, IEC and Communication 3. Total # of mothers surveyed 4. # of mothers with improved knowledge on recognition of RR as a sign of ARI and promptly seek care from CHWs/HF	6. Training reports 7. Financial report from project	1.Training officer 2.FHC CHWs routinely	Quarterly	How cost-effective are the community trainings? (unit cost of training 1 CHW) How well does the cost sharing strategy in community training work? Can it be sustained by the community? What proportion of the community actors have been trained on ARI case mx, use of IEC materials and Interpersonal communication? What proportion of infants do the CHWs have access to with their health delivery system?	Mean cost of training 1 CHW/ VHC % amount of community contribution in the total cost	Cty Level: FHC/CBA MOH/ CARE level: PM SMT M&E

Input Level: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH Process level: 1.Total # of trainings held 2. # of trainings held on Interpersonal communication Output Level: 1. # of CHWs/VHCs trained on Communication	8. Training report 9. Financial report from project	1.Taining Officer 2. FHC	Quarterly		Mean cost of training 1 CHW/ VHC % amount of community contribution in the total cost	Cty Level: FHC/CBA MOH/ CARE level: PM SMT M&E
Input Level: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH Process level: 1.Total # of trainings held 2. # of trainings held on IEC use Output Level: 1.# of CHWs/VHCS selected per site 2. # of CHWs/VHCs trained on IEC 3. Total # of mothers surveyed 4. # of mothers with improved knowledge on recognition of RR as a sign of ARI	6. Training report 7. Financial report from project	1.Training Officer 2.PM 3.FHC	Quarterly		Mean cost of training 1 CHW/ VHC % amount of community contribution in the total cost	Cty Level: FHC/CBA MOH/ CARE level: PM SMT M&E

Input Level: 1..# of CHWs who practice ARI case mx 2.# of CHWs who practice ARI case mx and are taken to H/F for assessment Process level: 1.Total # of sessions conducted at H/F for assessment Output level: 1.Total of CHWs assessed at H/F 2.# of CHWs correctly assess, classify, treat, and refer a child with ARI in 1st , 2nd ,etc	1. Supervisory Checklist	1. CBA 2. FHC	Quarterly	What proportion of the CHWs correctly assess, classify, treat and refer children with ARI related conditions as per CICSS protocol? What areas do CHWs need refresher trainings on ARI case mx?	Percent Proportion	H/F level: CBA SMT level: M&E
Input Level: 1..# of registers taken Process level: 1.Total # of cases seen in the register 2. # of cases taken from each register Output level: 1# of correct assessment, classifications, treatment and referral made 1st , 2nd ,etc	1. Clinical Register	1.M&E 2.HIS Officer 3. MOH HIS officer	Quarterly	What proportion of the CHWs correctly assess, classify, treat and refer children with ARI related conditions as per CICSS protocol? What areas do CHWs need refresher trainings on ARI case mx?		
<u>Input Level</u>: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH 4.Total cost of producing IEC materials on all interventions 5. Cost of producing malaria IEC materials <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on malaria, IEC and Interpersonal	8. Training reports 9. Financial report from project 10. Rapid Mini Surveys	1.Training officer 2.FHC 3.M&E 4.MOH HIS Officer	Quarterly	How cost-effective are the community trainings? (unit cost of training 1 CHW) How well does the cost sharing strategy in community training work? Can it be sustained by the community? What proportion of the CHWs who have been trained on malaria case mx?	Mean cost of training 1 CHW/ VHC % amount of community contribution in the total cost	Cty Level: FHC/CBA MOH/ CARE level: PM SMT M&E

communication Output Level: 1.# of CHWs/VHCS selected per site 2. # of CHWs/VHCs trained on malaria, IEC and Communication 3. Total # of mothers surveyed 4.# of mothers with improved knowledge on recognition of fever as a sign of malaria and promptly seek care from CHWs/HF 5. Total # of VHCs trained on malaria prevention and Control education 6. # of VHCs conducting the malaria prevention and control activities 7. # of children seen when had malaria				What proportion of CHWs/VHCs have been trained on the use of IEC materials? What proportion of CHWs have been trained on Inter personal communication? What proportion of VHCs and CHWs carry out Malaria Prevention and control education in the project area? How active are CHWs involved in the case Mx of Malaria?		
Input Level: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH Process level: 1.Total # of trainings held 2. # of trainings held on IEC use Output Level: 1.# of CHWs/VHCS selected per site 2. # of CHWs/VHCs trained on IEC 3. Total # of mothers surveyed 5.# of mothers with improved knowledge on recognition of fever as a sign of malaria and promptly seek for care from CHW or HF	8. Training report 9. Financial report from project 10. Rapid Mini Surveys	1.Training Officer 2.PM 3.FHC 4.M&E 5. MOH/HIS Officer	Quarterly	How well does the preventive strategy work amongst the expectant mothers(prophylaxis)? Are mothers with children below 2 years sleeping under treated nets? What proportion of treated nets sold through BIs are redipped after every 6 months?	Mean cost of training 1 CHW/ VHC % amount of community contribution in the total cost Percentages Proportion	Cty Level: FHC/CBA MOH/ CARE level: PM SMT M&E

6.Total # of VHCs in the project 7. # of VHCs trained on Malaria prevention and control 8.Total of # expectant mothers in the project area 9. # of mothers using fansidar as a prophylaxis 10. Total # of mothers with children less than 2 years 11. # of mothers with children less than 2 years sleeping under treated nets 12. Total # of households in the project area 13.# of household using treated nets within a span of 6 months						
Input Level: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH Process level: 1.Total # of trainings held 2. # of trainings held on Interpersonal communication Output Level: 1. # of CHWs/VHCs trained on Communication	10. Training report 11. Financial report from project	1.Taining Officer 2. FHC	Quarterly		Mean cost of training 1 CHW/ VHC % amount of community contribution in the total cost	Cty Level: FHC/CBA MOH/ CARE level: PM SMT M&E
Input Level: 1..# of CHWs who practice ARI case mx 2.# of CHWs who practice ARI case mx and are taken to H/F for assessment Process level: 1.Total # of sessions conducted at H/F for assessment Output level: 1.Total of CHWs assessed at	1. Supervisory Checklist	3. CBA 4. FHC	Quarterly	What proportion of the CHWs correctly assess, classify, treat and refer children with ARI related conditions as per CICSS protocol? What areas do CHWs need refresher trainings on ARI case mx?	Percent Proportion	H/F level: CBA SMT level: M&E

H/F 2.# of CHWs correctly assess, classify, treat, and refer a child with ARI in 1st , 2nd ,etc						
Input Level: 1..# of registers taken Process level: 1.Total # of cases seen in the register 2. # of cases taken from each register Output level: 1# of correct assessment, classifications, treatment and referral made 1st , 2nd ,etc	1. Clinical Register	1.M&E 2.HIS Officer 3. MOH HIS officer	Quarterly	What proportion of the CHWs correctly assess, classify, treat and refer children with ARI related conditions as per CICSS protocol? What areas do CHWs need refresher trainings on ARI case mx?		
Input Level: Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH 4.Total cost of producing IEC materials on all interventions 5. Cost of producing diarrhea IEC materials <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on diarrhea prevention and control. 3.# of training s held on the use of IEC materials targeting dairrhea <u>Output Level</u>: 1.# of CHWs/VHCS selected per site 2. # of CHWs/VHCs trained on diarrhea prevention and control., use of IEC 3. # of VHCs carrying the	1.Training report 2. Financial report from project 3. Rapid Mini Surveys	1.M&E 2. TO 3. FHC 4.CBA 5.MOH HIS Officer	Quarterly	How cost-effective are the community trainings? (unit cost of training 1 CHW) How well does the cost sharing strategy in community training work? Can it be sustained by the community? How well does the prevention and control strategy work in the reduction of diarrheal episodes? How active are the VHCs involved in the prevention and control diarrheal diseases?	Mean cost of training 1 CHW/ VHC % amount of community contribution in the total cost Percentages Proportions	Cty Level: FHC/CBA MOH/ CARE level: PM SMT M&E

preventive and control DD 4. Total # of mothers surveyed 6. Total # of VHCs trained in prevention and control of diarrhea 7.# of VHCs conducting prevention and control of diarrhea education 8.# of mothers reporting exclusive breast feeding up to the age of 4 months 9.Total population of the under 5 yrs in the project area Prevalence of diarrheal diseases						
Input Level: 1.Total cost of training CHWs/VHCs 2. Amount contributed from cty 3. amount contributed from CARE/MOH 4.Total cost of producing IEC materials on all interventions 5. Cost of producing ARI IEC materials Process level: 1.Total # of trainings held 2. # of trainings held on ARI, IEC and Interpersonal communication Output Level: 1. # of CHW trained on Diarrhea case Mx 2. Total # of mothers surveyed 3. # of children seen by CHWs monthly. 4# of mothers reporting usage of ORT at the onset of diarrhea and seek for immediately from CHW or HF	1.Training report 2. Financial report from project 3. Rapid Mini Surveys	1.M&E 2. TO 3. FHC 4.CBA 5.MOH HIS Officer	Quarterly	How cost-effective are the community trainings? (unit cost of training 1 CHW) How well does the cost sharing strategy in community training work? Can it be sustained by the community? How active are the CHWs involved in the case management of Diarrhea?	Mean cost of training 1 CHW/ VHC % amount of community contribution in the total cost Percentages Proportions	Cty Level: FHC/CBA MOH/ CARE level: PM SMT M&E
	Community Meeting Proceedings		Monthly	How well does the recruitment criteria developed work?		

Input Level: Total cost of training CHWs/ W/groups/BFSGs/ TBAs 2. Amount contributed from cty 3. amount contributed from CARE/MOH 4.Total cost of producing IEC materials on all interventions 5. Cost of producing IEC materials on diarrhoeah, exclusive breast feeding <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on exclusive breast feeding. 3.# of training s held on the use of IEC materials targeting exclusive breast feeding <u>Output Level</u>: 1.# of CHWs, W/groups/BFSG recruited per site 2. # of CHWs/W/groups/BFSGs trained on exclusive breast feeding techniques 3. # of CHWs/W/groups/BFSGs carrying the promotion on exclusive breast feeding 4. Total # of mothers surveyed 5.# of mothers reporting exclusive breast feeding up to the age of 4 months	Rapid Mini Surveys Demographic Survey report Recruitment meeting Proceedings Training report KPC Survey report	M&E MOH HIS Officer FHC TO CBA	Quarterly Annually End of 4 yrs	How effective is Exclusive Breast feeding strategy working? How well does the recruitment criteria work?	Mean cost of training 1 CHW/ VHC % amount of community contribution in the total cost Percentages Proportions	Cty Level: FHC/CBA MOH/ CARE level: PM SMT M&E
Input Level: 1..# of CHWs who practice diarrhea case mx 2.# of CHWs who practice diarrhea case mx and are taken to H/F for assessment Process level: 1.Total # of sessions conducted at H/F for assessment	1. Supervisory Checklist	5. CBA 6. FHC	Quarterly	What proportion of the CHWs correctly assess, classify, treat and refer children with diarrhea related conditions as per CICSS protocol? What areas do CHWs need refresher trainings on Diarrhea case mx?	Percent Proportion	H/F level: CBA SMT level: M&E

Output level: 1.Total of CHWs assessed at H/F 2.# of CHWs correctly assess, classify, treat, and refer a child with ARI in 1st , 2nd ,etc				What proportion of CHWs demonstrate correctly the preparation and use of ORS?		
Input Level: 1. # of registers taken Process level: 1.Total # of cases seen in the register 2. # of cases taken from each register Output level: 1# of correct assessment, classifications, treatment and referral made 1st , 2nd ,etc	1. Clinical Register	1.M&E 2.HIS Officer 3. MOH HIS officer	Quarterly	What proportion of the CHWs correctly assess, classify, treat and refer children with diarrhea related conditions as per CICSS protocol? What areas do CHWs need refresher trainings on diarrhea case mx?		
Input Level: Total cost of training CHWs 2. Amount contributed from cty 3. amount contributed from CARE/MOH <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on Vitamin A. <u>Output Level</u>: 1.# of CHWs trained on Vitamin A integration 2. # of CHWs correctly dispensing VAC to sick children 3.Total # of sick children seen 4.# of children with specific conditions put on VAC 5.Qty of VAC distributed 6.Total # of lactating mothers in the project area. 7.# of lactating mothers who	1.Training report 2. Financial report 3.VAC Monitoring sheet 12. Clinical register 13. Supervisory checklist 14. Maternal Child health register	1.TO 2. FHC 3. CBA 4.M&E 5.MOH HIS officer	Quarterly	How cost-effective are the community trainings? (unit cost of training 1 CHW) How well does the cost sharing strategy in community training work? Can it be sustained by the community? How active are the CHWs involved in the distribution of Vitamin A? What proportion of CHWs correctly dispense VAC to sick children? What proportion of sick children received VAC?	Means Descriptive analysis Proportion Percentages	Cty Level: FHC/CBA MOH/ CARE level: PM SMT M&E

received VAC				What is the consumption rate of VAC in the project area?		
Input Level: Total cost of training CHWs,TBAs,VHCs,CBDs,W/Gps & BFSGs 2. Amount contributed from cty 3. amount contributed from CARE/MOH <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on Vitamin A. <u>Output Level</u>: 1.# of CHWs,TBAs,CBDs,VHCs,W/Gps&BFSGs trained on mother education and counseling 2. # of mothers sampled in the survey 3.# of mother with knowledge on Vitamin A rich foods 4. # of days Vitamin A rich foods are consumed.	Rapid Mini Surveys Training report Financial report from project	M&E Officer MOH HIS Officer TO FHC CBA	Quarterly	How effective is the strategy on mother education and counseling on production and consumption of Vitamin A rich foods? How active are CHWs, CBDs, TBAs, W/Gps and BFSGs in the promotion of Vitamin A?	Mean Scores of animal & plant consumption Proportion	Cty Level: FHC/CBA MOH/ CARE level: PM SMT M&E
Input Level: 1.Total cost of training health providers 2. Amount contributed from other agencies 3. amount contributed from CARE/MOH <u>Process level</u>: 1.Total # of trainings held 2. # of trainings held on Vitamin A. <u>Output Level</u>: 1.# of health providers trained 2. # of health providers trained	Static Health facility records MOH reports	Partners M&E MOH HIS Officer	Routinely by partners CARE/MOH Semi-Annually	How effective is the partnership with other health providers in Vitamin A supplementation in increasing the coverage? What proportion of sick children are correctly dosed with VAC?	Proportion Percentages Descriptive analysis	MOH HIS Officer M&E Officer FHC CBA

carrying Vitamin A supplementation 3.Total number of lactating mothers in their catchment area 4. # of lactating mothers put on Vitamin A 6.Total # of sick children seen by health providers 7. # of sick children put on VAC correctly						
Input Level: 1.Total cost of training contributed by CARE/MOH Process level: 2. Total # of trainings Total # of days each training session took Output level: 1.# of teachers trained 2.# of teachers actively involved in the promotion of Vitamin A activities at the school health	Training report Financial report Field days report Rapid Mini Surveys	TO M&E FHC CBA MOH HIS Officer	Quarterly	How active are the trained school teachers involved in the promotion of Vitamin A activities?	Proportion	TO M&E FHC CBA MOH HIS Officer
Input level: 1Unit cost of producing a Newsletter Process level: 1. .# of meetings held Output level: 1.# of each target reached with Newsletter 2.Total # of leaders reached with the Newsletter 3.# of leaders using Newsletter in advocating for Vitamin A activities	Field days Report Minutes of WG Meetings Financial report Rapid Mini Surveys	FHC CBAs M&E MOH HIS Officer	Routinely during Field days	How effective is the Bi annual Newsletter in Information Dissemination? What proportion of Community leaders use the Newsletter in advocating for Vitamin A activities?	Proportion	FHC CBA M&E
Input Level: 1.Total cost of training CHW/CBDs/VHCs 2. Amount contributed from	Training report Financial report	M&E MOH HIS Officer	Quarterly	How effective is the projects strategy on prevention and control of HIV/AIDS in Behavior Change?	Percentage Proportions	M&E MOH HIS Officer

community on training of CHWs/CBDs/VHCs 3. amount contributed from CARE/MOH Process level: 1.Total # of trainings held 2. # of trainings held on HIV/AIDS prevention and control Output Level: 1.# of CHWs/CBDs/VHCs trained on prevention and control of HIV/AIDS 2. # of CHWs/CBDs/VHCs who carry outg promotional activities on STI/HIV/AID 3. # of people sampled 4. # of reporting having had safe sex with their non-regular partners 6.# of people being treated for STI at rural H/F	Health facility records KPC Survey results	TO		How active are the CHWs/CBDs/VHCs carrying out the prevention and control activities?		TO
Input Level: 1.Total cost of training Youth Groups 2. Amount contributed from community on training of Youth Groups 3. amount contributed from CARE/MOH Process level: 1.Total # of trainings held 2. # of trainings held on promotion of HIV/AIDS Output Level: 1.# of Youth groups trained on promotion of STI/HIV/AIDS activities	Training report Financial report Health facility records KPC Survey results	M&E MOH HIS Ifficer TO	Quarterly	How effective is the projects strategy on prevention and control of HIV/AIDS in Behavior Change? How active are the Youth groups in carrying out the prevention and control activities?	Percentage Proportions	M&E MOH HIS Ifficer TO

2. # of Youth groups who carry out promotional activities on STI/HIV/AID 3. # of people sampled 4. # of reporting having had safe sex with their non-regular partners 6.# of people being treated for STI at rural H/F						
Input level: Total training cost Process level: # of training sessions held Output level: 1.# of community leaders trained 2. # of community leaders actively carrying out promotion of prevention and control of STI/HIV/AIDS	Training report Financial report	TO CBAs	Quarterly	How active are the community leaders involved in the advocacy/campaigns on the prevention and control of STI/HIV/AIDS?	Proportions	TO CBAs
Input level: Total training cost Process level: # of training sessions held Output level: 1.# of health providers trained 2. Total # of health in project area 3. # of health facilities syndromic diagnosis of STI 4.# of cases seen at health facilities	Training report Financial report Health facility records Reports from MOH HIS Office	M&E from MOH HIS Office TO MOH HIS Officer Health Providers from H/F	Quarterly Routinely for health providers	How effective is the strategy that promotes health seeking behavior on STI? -STI cases increase? STI cases decrease? Drug supply regular? Condom use increase?	Percentages Trend analysis	SMT level M&E Partners MOH HIS Officer/M&E District M&E MOH HIS Officer H/F MOH HIS Officer FHC

Input level: 1.Total cost of training 2.Training contribution from the commu nity Process level: 1.# of training sessions done 2.# of days each training session took Output level: 1.# of CHWS, VHCs/leaders trained 2.# of sites receiving outreach services 3. Total # of children who have not completed immunization 4. # of children receiving immunization antigens 5. Total # of expectant mothers 4. # of expectant mothers receiving TT	Maternal /Child health register Community chalkboard Immunization records at community level Immunization Summary sheet for verification KPC Survey	CHWs VHCs Health providers M&E MOH HIS Officer	Routinely by health providers & CHWs Monthly by VHCs Quarterly by M&E MOH HIS Officer	How cost-effective is the community/MOH sponsored Immunization service? Can it be sustained by the community?	Percentage Proportions	SMT level M&E Partners MOH HIS Officer/M&E District M&E MOH HIS Officer H/F MOH HIS Officer FHC
Process level: 1.# of training sessions conducted child spacing 2. # of days each training session took Output level: 1.# of CHWs, VHCs,TBAs/ leaders trained # of TBAs,VHCs and leaders actively involved in advocating for child spacing 2.# of mothers using modern contraceptive methods 3.Total # of women of reproductive age # of women of reproductive age reached with education on child spacing.	Training report Financial report Community Chalkboard Health facility reports Rapid Mini Surveys	TO CBDs M&E MOH HIS Officer	Routine by CBDs Quarterly by M&E Quarterly by MOH HIS Officer	What proportion of women of child bearing age that use modern contraceptive methods? What proportion of TBAs, VHCs , CHWs and community leaders advocate for child spacing in the community?	Percentages Proportions Trend analysis	TO CBDs M&E MOH HIS Officer

Process level: 1.# of training sessions conducted child spacing 2. # of days each training session took Output level: 1.# of CBDs trained # of CBDs actively involved in advocating for child spacing 2.# of mothers using modern contraceptive methods 3.Total # of women of reproductive age # of women of reproductive age reached with education on child spacing.	Taining report Financial report Community Chalkboard Health facility reports Rapid Mini Surveys	TO CBDs M&E MOH HIS Officer	Routine by CBDs Quarterly by M&E Quarterly by MOH HIS Officer	What proportion of women of child bearing age that use modern contraceptive methods? What proportion of CBDs advocate for child spacing in the community?	Percentages Proportions Trend analysis	TO CBDs M&E MOH HIS Officer
Input level: 1.Total cost of training 2.amount contributed from community Process level 1.# of trainings held 2.# of days each training took Output level: 1.# of VHCs, SHCs& CHWs trained 2. # of VHCs summarizing and plotting data on chalkboard 3..# of VHCs using community information for planning their activities 4. # of supervisory visits made by VHCs to CHWs on data management	Field Notebooks Quarterly Progress reports from VHCs Observation of Chalkboard	Monthly by M&E Monthly by MOH HIS Officer	Monthly	What proportion of VHCs are capable of managing their Information System without support from outside? How well does VHC – CHW Supervision work? Can this supervisory system be sustained at the community? Can the Community leaders monitor their progress on their own?	Proportion Trend analysis Descriptive analysis	M&E to SMT MOH HIS Officer to DHMT
Input level: 1.Total cost of training	Training report Financial report	M&E	Routinely by M&E	Can MOH support Community HIS?	Proportion of MOH staff carrying out support	MOH HIS Officer to DHMT

Process level 1.# of trainings held on computer 2.# of trainings held on Information system Output level: 3.# of HIS, PHTs and Nurses trained on Community Information system 5.# of HIS staff trained on Computer applications 6.Total # of MOH staff trained on CBHIS 7.# of MOH staff who carry out support to CBHIS. 8.Total # of MOH staff trained on CMCI 9.# of MOH staff supporting CHWs on CMCI 10. Total # of CHWs assessed at H/F 11. # of CHWs who correctly assess, classify, treat and refer sick children	Report Community pharmacies	VHCs/ SHCs	Quarterly by VHCs/ SHCs	Can MOH /DHMT use the information to monitor the progress of the project?	Percentages	M&E to SMT FHC to health facility level. CBAs to Community
Input level: Cost of procuring a computer & motorbike Process level Handing over process documented Output level # of computers provided # of motorbike provided	Procurement documents Handing over documents	PM	N/A	How well does the MOH HIS office use the computer/ Motorbike to support the Community HIS?	Trend analysis	M&E to give feedback to SMT PM to give feedback to DHMT
Input level: Total cost of training Process level # of training sessions held # of days each training took						

Annex J:

Case Management of Childhood Illnesses Guidelines

Annex K:

National Immunization Schedule

Annex L:

Vaccination and Health History Cards

Annex M:

MOH Vitamin A Policy

Annex N:

MOH Control of Diarrheal Diseases Policy

Annex O:

MOH Acute Respiratory Infection Guidelines

Annex P:

MOH Malaria Guidelines

Annex Q:

MOH Reproductive Health Guidelines

Annex R:

MOH IMCI Guidelines